Ipswich and Waveney Housing Market Areas
Strategic Housing Market Assessment Part 1

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PART A:
BACKGROUND AND MARKET GEOGRAPHY

1 INTRODUCTION

1.1 Ipswich Borough Council (IBC), Babergh District Council (BDC), Mid Suffolk District Council (MSDC), Suffolk Coastal District Council (SCDC) and Waveney District Council (WDC) jointly commissioned Peter Brett Associates (PBA) to undertake this study in September 2016.

1.2 The brief set out the following objectives and outputs:

- To test and confirm the housing market geography;
- To produce conclusions on objectively assessed housing need.

1.3 This report is in three parts. Part A provides the introduction and policy context and goes on to analyse the market geography of the study area. The analysis finds that the area contains two housing market areas (HMAs), the Ipswich HMA and the Waveney HMA. In line with national policy, the objectively assessed housing need should be calculated for each HMA. Part B of the report provides this calculation for the Ipswich HMA and part C for the Waveney HMA.

1.4 The report forms Volume 1 of the Strategic Housing Market Assessment (SHMA) commissioned by the client authorities. Volume 2 deals with housing mix and tenure and affordable housing need.

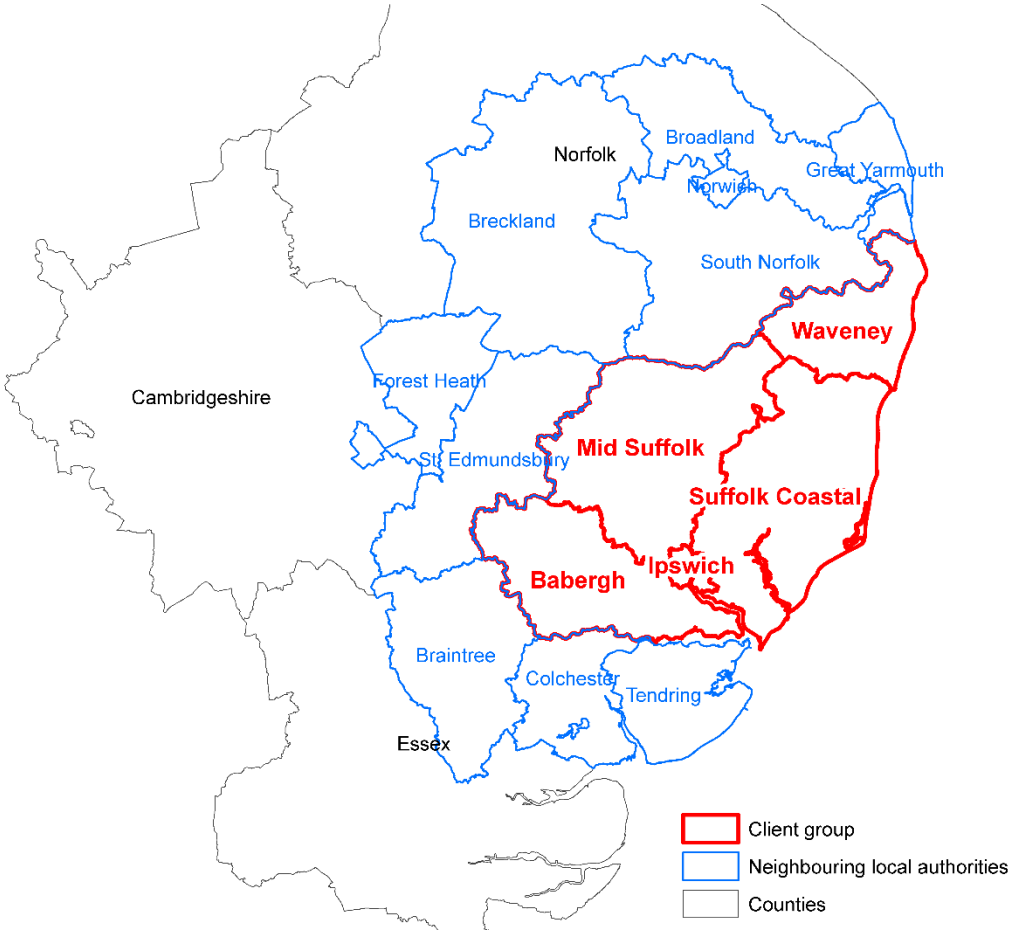
1.5 In preparing this study, there has been engagement with the client authorities neighbours and other relevant stakeholders such as the county council. This included a workshop in October 2016 to share the proposed method and present emerging findings; authorities were given an opportunity to make comments at this juncture. The draft study was also shared with duty-to-co-operate partners and any comments considered in finalising the SHMA.

2 POLICY AND EXISTING EVIDENCE

Introduction

2.1 This section sets out a high-level review of both the policy and evidence base available in each of the five authorities within the client group.

Figure 2.1 Authorities within and surrounding the client group



2.2 Ipswich borough and Babergh, Mid Suffolk and Suffolk Coastal districts are working closely together on their Local Plan reviews.

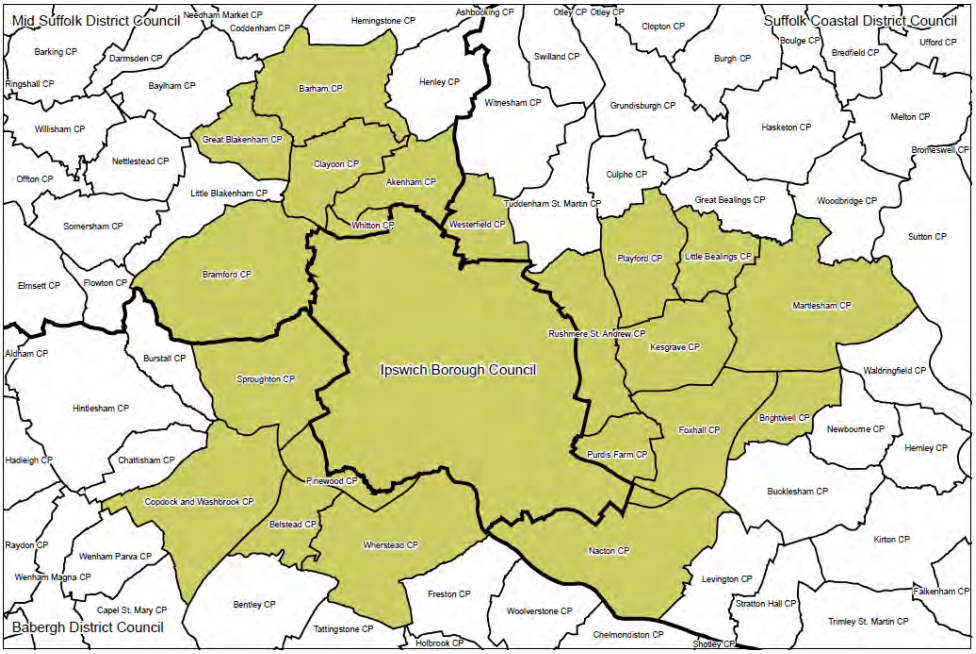
Ipswich

2.3 The development plan for IBC comprises the Core Strategy and Policies Development Plan Document (DPD) Review and the Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD. Both were adopted on 22 February 2017.

2.4 Due to restricted land availability within the borough boundary and the functional relationship between Ipswich borough and the neighbouring authorities, the Ipswich Policy Area (IPA), in its current form, was established in c.2007. As currently defined,

it includes parishes on the edge of Babergh, Mid Suffolk and Suffolk Coastal (Figure 2.2)[1].

Figure 2.2 Ipswich Policy Area



Source: IBC

2.5 The now-revoked East of England Plan (EoEP) set a target for Ipswich borough of planning for 15,400 additional dwellings (770 dpa) in the period 2001-2021. However, after a review of local evidence, the 2011 Core Strategy revised this figure to 14,000 for the same period, equating to a new annual target of 700 dpa.

2.6 The most recent AMR[2] states that the estimated housing delivery shortfall for Ipswich between 2001 and 2016 will be 2,117 dwellings. As a result, IBC could only demonstrate enough land for a 2.76 year supply of housing land.

Ipswich Local Plan examination

2.7 The newly adopted Local Plan consists of a review of the Core Strategy and a new Site Allocations and Policies Document. This follows submission to the Secretary of State for examination in December 2015, and hearing sessions were held in spring/summer 2016. The Inspector's report was published in January 2017 and the Local Plan subsequently adopted in February 2017.

2.8 The 'starting point' for housing need in the December 2015 submission draft Local Plan was based on the then-most recent CLG 2012-based projections. This indicated a need for 10,435 new dwellings in the period 2011-2031 (522 dpa). However, the draft Local Plan set out that, because of some concerns about the CLG 2012-based

[1] Memorandum of Understanding (June 2016) https://www.ipswich.gov.uk/sites/default/files/pscd28_-_memorandum_of_understanding_-_planning_for_housing_and_employment_development_-_june_2016.pdf

[2] Ipswich Authority Monitoring Report 11, 2014/15. December 2015. https://www.ipswich.gov.uk/sites/default/files/icd03a_-_amr_dec_2015.pdf

projections, the housing requirement was set at 13,550 dwellings (677 dpa) over the same period.

2.9 During the course of the examination, concerns over the robustness of the 13,550 figure were raised by the Inspector in his report:

> *'there is an urgent need for the Council to work with its neighbouring authorities to produce a fit-for-purpose objective assessment of need for new housing for the Ipswich Housing Market Area. This conclusion is consistent with my Interim Findings published in April 2016 following the initial Examination hearings but also has regard to the subsequently-published 2014-based household projections. Thus, and in line with the Memorandum of Understanding* [the minor modifications] *commit the Council to working with its neighbours to prepare an updated OAN for housing for the HMA as a whole, a strategy for the distribution of it between the constituent districts and the adoption of joint or aligned local plans to deliver this by 2019. These modifications are thus necessary for the soundness of the plan'*[3]

2.10 In relation to supply, the Inspector's report sets out that because *'there are unlikely to be appropriate, available and deliverable sites to deliver substantially more than 9,777 dwellings in Ipswich during the plan period, there would be little point in setting the plan's housing requirement, for the period until the updated OAN is in place, higher than this. However, in the interim period until the OAN is reviewed, it is appropriate to set the requirement as at least 9777 dwellings'*[4]. Accordingly, Policy CS7 of the new Local Plan sets out an interim housing requirement of at least 9,777 dwellings (489 dpa) over the period 2011-31.

Babergh

2.11 The development plan for Babergh consists of the saved policies of the Local Plan (2006), the Babergh Core Strategy 2011-2031 (2014), the East Bergholt Neighbourhood Plan (2016) and the Lavenham Neighbourhood Plan (2016).

2.12 Initial consultation was undertaken between January and March 2015 on a Core Strategy Focused Review, a Development Management Plan document, and a Strategic Site Allocations and Designations document. However, BDC and MSDC have subsequently embarked on a comprehensive new Joint Local Plan.

2.13 Core Strategy Policy CS3 (Strategy for Growth and Development) sets a housing requirement of 5,975 new dwellings between 2011 and 2031. This requirement was based on a combination of the EEFM and the conclusions of the previous old-style SHMA (2012)[5]. Housing delivery in Babergh is phased so that there was a target of

[3] Para. 28 https://www.ipswich.gov.uk/sites/default/files/ipswich_inspectors_report_17_jan_2017_combined.pdf

[4] Para. 33 ibid

[5] http://www.babergh.gov.uk/assets/Uploads-BDC/Economy/Strategic-Planning-Policy/LDF/CoreStrategy/LPInspectorsReportJan14.pdf para. 79-80
http://www.babergh.gov.uk/assets/Uploads-BDC/Economy/Strategic-Planning-Policy/LDF/EIP/TBD8-SHMA-Review.pdf

220 dpa in the first five years (2011-2016), rising to 325 dpa in the years that follow. Although Babergh has recently fallen short of its housing targets, in the years up to and including 2015/16 it was able to demonstrate a five-year supply[6].

Mid Suffolk

2.14 The development plan for Mid Suffolk comprises the saved policies of the 1998 Local Plan, the Core Strategy (2008), the Core Strategy Focused Review (CSFR) (2012), the Stowmarket Area Action Plan (2013) and the Mendlesham Neighbourhood Plan (2017). As set out above, a Joint Local Plan with BDC is currently being prepared.

2.15 The CSFR sets a target of 6,450 dwellings for the period 2012-27 equating to an annual target of 430 dpa, based upon the 2008 SHMA and subsequent updates and the targets set out in the EoEP. The most recent AMR (2015/16) shows that delivery against the target in Mid Suffolk has fluctuated. The AMR shows that Mid Suffolk can only identify a housing land supply of 3.7 years.

Suffolk Coastal

2.16 The development plan for Suffolk Coastal comprises a small number of saved policies of the Local Plan (2001); the Suffolk Coastal District Local Plan – Core Strategy and Development Management Policies (2013); the Site Allocations and Area Specific Policies DPD (2017); the Felixstowe Peninsula Area Action Plan (2017); the Rendlesham Neighbourhood Plan (2015); the Framlingham Neighbourhood Plan (2017); the Leiston Neighbourhood Plan (2017); and the Great Bealings Neighbourhood Plan (2017). A number of other neighbourhood plans are being progressed.

2.17 SCDC are undertaking a Local Plan Review which will cover the whole district.

2.18 The EoEP required SCDC to plan for 10,200 new homes between 2001-2021, equating to 510 dpa. This included a requirement to provide 3,200 homes in part of the district covered by the IPA. Following the initial revocation of the EoEP in 2010, the Council commissioned Oxford Economics to update its housing figures. This identified an OAN of 11,000 homes over the period 2010 – 2027. The Core Strategy proposed a lower housing requirement of "at least 7,900 homes" (465 dpa) which was accepted and found sound at examination. Information in the Site Allocations and Area Specific Policies Document confirms provision for some 8,670 homes across the district over the plan period 2010 – 2027. The most recent Housing Land Supply Assessment confirms a shortfall in requirements to date of some 774 homes but it still details a 5.8 years' worth of housing against the adopted housing requirement of 7,900 dwellings.

[6] Babergh and Mid Suffolk Joint Annual Monitoring Report 2015-2016. June 2016. http://www.babergh.gov.uk/assets/Uploads-BDC/Economy/Strategic-Planning-Policy/LDF/AMR/FINALAMR-201516.pdf

Waveney

2.19 The development plan for Waveney comprises the Core Strategy (2009), Development Management Policies (2011), and Site Specific Allocations (2011). Waveney is currently preparing a new Local Plan which will review and update the existing development plan documents, to produce one Local Plan document. Adoption is planned for May 2018.

2.20 The EoEP set out the housing requirement for Waveney at 5,800 dwellings over the period 2001-2021 (290 dpa). Projecting this figure forward, Core Strategy Policy CS11 (Housing) outlines the need for an additional 1,160 dwellings between 2021 and 2025; in total this equates to a target of 290 dpa for the whole period 2001-2025. The most recent five-year housing land supply report[7] details that in the period 2001-16 Waveney was under its housing target by 123 dwellings. Despite this, the report shows that Waveney has a supply of 5.8 years of housing land.

Waveney SHMA and Objectively Assessed Housing Need Study: Preliminary Report (April 2016)

2.21 An old-style SHMA which predated the publication of both the NPPF and PPG was prepared for Waveney as a sub-regional assessment with Great Yarmouth in 2007. This was based on secondary data available at the time. However, following the review of the Waveney Local Plan, WDC produced an initial assessment of the housing requirement for the period 2011-2036.

2.22 The self-contained HMA, as defined by NHPAU, was used as a starting point in determining the HMA for Waveney. Using data from the 2011 Census, the HMA was tested against the indicators of migration, commuting and house prices. The analysis showed that the migration containment rate was below the 70% NPPG test; the travel to work patterns indicated a high level of self-containment; and house prices showed very little with regards to the definition of an HMA. It was concluded that Waveney should be considered a self-contained HMA, and the study used the 2012-based CLG projections as the demographic starting point for its assessment.

2.23 The assessment of market signals suggested an uplift to the demographic projections could be justified. Although Waveney was no less affordable than other areas, poor wages and lack of finance were considered to be a key constraint to the renting and buying of property. Housing delivery has been slow to improve following the economic downturn, and the falling rate of delivery in the years before 2016 suggested a need for an uplift.

[7] Statement of a 5-year supply of housing land, March 2016
http://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Housing-Land-Availability/Statement-Of-5-Year-Housing-Land-Supply-3-October-2016.pdf
http://www.eastsuffolk.gov.uk/assets/Planning/Suffolk-Coastal-Local-Plan/Housing-Land-Availability/F-11-Housing-Land-Supply-Assessment-August-2016-Update.pdf

2.24 The OAN calculated for the Waveney HMA was 381 dpa over the period 2011-2036 (9,525 dwellings in total), a 41 per annum uplift on the 2012-based CLG projections.

Relationship with the Broads Authority

2.25 The Broads Authority extends into Waveney, as well neighbouring districts of North Norfolk, Broadland, Norwich, Great Yarmouth and South Norfolk. While the Broads Authority was not part of the client group and instead formed part of the client group for the Central Norfolk SHMA (2016), because it is not covered as a separate entity in any official projections and the geographical overlap with Waveney, we refer to it in forthcoming sections in our analysis for this study of demography and its relationship with Waveney's OAN.

Summary

2.26 For all the client authorities, the adopted housing targets are either derived from the now-revoked EoEP or old-style SHMAs, which were carried out prior to the publication of the PPG and did therefore not follow the method set out in the PPG.

2.27 While IBC, SCDC and WDC have undertaken some work to identify housing need, this has been done on the basis of those single authorities. However, the NPPF requires housing need to be met in full at the housing market area level; this is something that the Inspector confirmed at IBC's recent plan examination. Therefore, in the following section, we test and define the housing market geography.

3 DEFINING HOUSING MARKET AREAS

Introduction

3.1 Much of the demand or need for housing is not tied to specific local authority areas, because people's decisions on where to live are driven by access to jobs, schools, family etc., rather than administrative boundaries. An HMA is an area of search.

3.2 The National Planning Policy Framework (NPPF) instructs that, where an HMA covers more than one local authority, plan-makers should assess housing needs for the whole area rather than each authority individually. Therefore, the first step in the study is to see if Ipswich, as the urban core, is a standalone HMA. If it were not, in order to provide a sound needs assessment we would need to add further authorities to the analysis, even if they are not taking part in the study.

3.3 The Planning Policy Guidance (PPG) provides technical advice on how HMAs should be defined, noting that an HMA should be a reasonably self-contained area in terms of migration – so that a high proportion of house moves occur within the area, as opposed to crossing its boundaries. It adds that this share of moves occurring within the HMA is *'typically 70% ... excluding long-distance moves (e.g. those due to a change of lifestyle or retirement)*'[8]. The PPG also identifies other data that can help identify HMAs, including commuting patterns, '*which will influence house price and location*'.

3.4 It is important to note that defining an HMA entails a large degree of judgement. The PPG places equal weight on contextual evidence in addition to statistical evidence relating to self-containment. For many rural authorities, where migration and commuting flows can be dispersed in all directions, this contextual evidence is especially important. One local authority area can often form part of several different statistically defined HMAs. It is also the case that pragmatism is needed; for example, where evidence base reviews (and plans) are not aligned.

3.5 In identifying a housing market area for the client group, our starting point is the geography defined in a study by the Centre for Urban and Regional Development Studies (CURDS) and others for the former National Housing and Planning Advisory Unit (NHPAU). That study, published by CLG in 2010[9], created a consistent set of HMAs across England, based on migration and commuting data from the 2001 Census. As the NHPAU study is the only one of its kind and has not been updated following the 2011 Census, we test the findings against up-to-date data on migration and commuting data from that Census, as well as house price and other contextual data.

[8] 2a-011-20140306

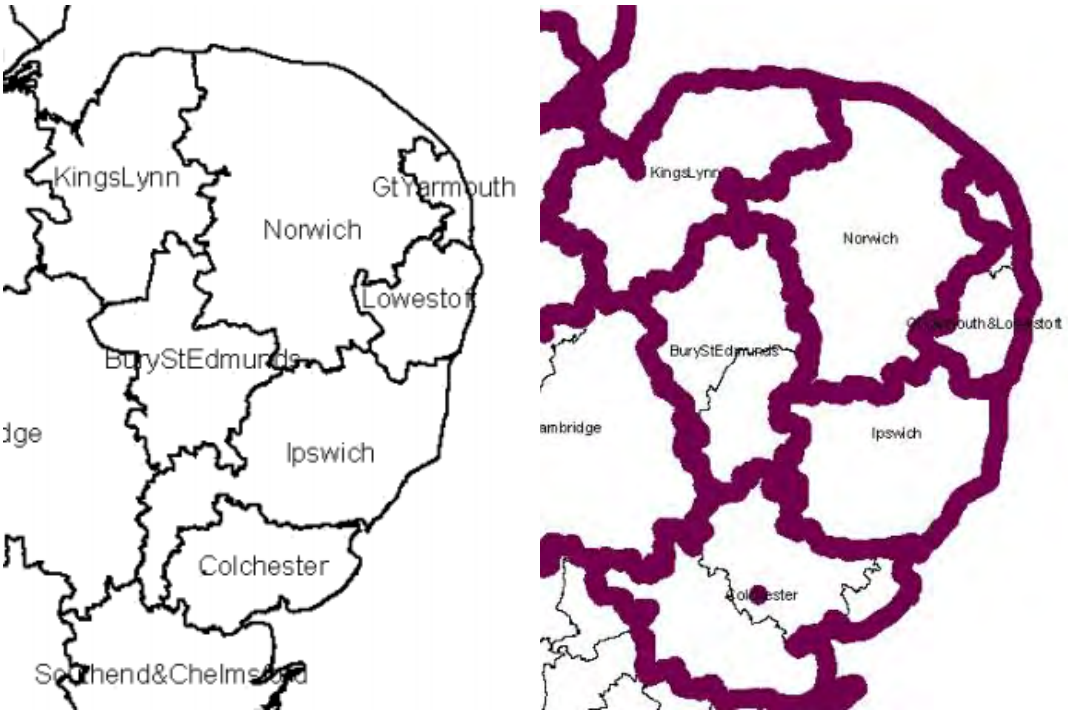
[9] C Jones, M Coombes and C Wong, Geography of housing market areas, Final report, November 2010, Department for Communities and Local Government

The NHPAU geography

3.6 The results of the NHPAU study are hosted on the CURDS website. It defines a three-tiered hierarchy of HMAs: strategic, single-tier and local. The study starts from a fine-grained analysis, producing HMAs that cut across administrative boundaries. But for the strategic and single-tier layers the study also provides a 'silver standard' version, which fits the HMAs to local authority boundaries.

3.7 In our view, for our present purpose the single-tier 'silver standard' geography[10] is the most helpful. We take this view for pragmatic reasons. Thus, we prefer the single-tier layer because strategic HMAs are often too large to be manageable; we prefer the 'silver standard' because HMAs boundaries that straddle local authority areas are usually impractical, given that planning policy is mostly made at the local authority level, and many kinds of data are unavailable for smaller areas.

Figure 3.1 NHPAU geography – single (left) and strategic (right) tiers



Source: NHPAU/CURDS

3.8 The NHPAU strategic geography brings together Babergh, Ipswich, Mid Suffolk and Suffolk Coastal (Figure 3.1, right), while the single-tier version adds in Braintree (left). Waveney is defined with Great Yarmouth under the strategic version (right), but both are standalone HMAs under the single tier (left).

3.9 We now move on to test the HMA geography against more recent migration and commuting data, from the 2011 Census.

[10] http://www.ncl.ac.uk/curds/assets/documents/6.pdf/ http://www.ncl.ac.uk/curds/assets/documents/28.xls

Migration

The 70% containment test

3.10 The migration threshold for self-containment is around 70% of all movers in a given time period. This 70% threshold applies to both those moving to locations in the HMA (at least 70% of all such moves should be from locations internal to the HMA), and moves out (the proportion of moves out of the HMA) should be less than 30% of the total.

3.11 We have tested containment levels starting with the NHPAU combinations:

- Ipswich, Babergh, Mid Suffolk and Suffolk Coastal (and Braintree), and
- Waveney (and Great Yarmouth)

3.12 We test and discuss these in turn below. We then look at various other combinations of authorities that are geographically close to examine the impact on migration containment; whether it increases or declines.

Testing the NHPAU Ipswich HMA

3.13 The table below shows the four client authorities (Ipswich, Babergh, Mid Suffolk, Suffolk Coastal: 'the four authorities') with Braintree does not meet the 70% containment test.

Table 3.1 Migration containment: Ipswich, Babergh, Mid Suffolk, Suffolk Coastal and Braintree

Origin (moves from)	Destination (moves to)			
	The four authorities plus Braintree	Elsewhere	Total moves from the four plus Braintree	Origin containment
The four authorities plus Braintree	38,454	17,149	55,603	69.2%
Elsewhere	18,444			
Total moves to the four plus Braintree	56,898			
Destination containment	67.6%			

Source: ONS, MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex (Census 2011) and PBA

3.14 The raw data shows that while Braintree has strong links with Babergh, it has comparatively weak links with Ipswich, Mid Suffolk and Suffolk Coastal. Looking in more detail at Braintree's links, it is clear that its strongest links are with Chelmsford and Colchester – the majority of moves are within Essex rather than northwards with Suffolk authorities.

3.15 For completeness, we add Colchester to the five authorities tested in the table above. This results in an improvement in containment due to the strong flows between Braintree and Colchester, but it is still slightly below the 70% threshold.

Table 3.2 Migration containment: Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree and Colchester

Origin (moves from)	Destination (moves to)			
	The four authorities plus Braintree & Colchester	Elsewhere	Total moves from the four plus Braintree & Colchester	Origin containment
The four authorities plus Braintree & Colchester	55,113	22,273	77,386	71.2%
Elsewhere	23,806			
Total moves to the four plus Braintree & Colchester	78,919			
Destination containment	69.8%			

Source: ONS, MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex (Census 2011) and PBA

3.16 In view of Braintree's stronger relationship with its Essex neighbours, we test the four authorities on their own to examine containment. The table shows that the four authorities pass the 70% threshold suggesting that they are well related. Ipswich is located centrally to the three districts and has larger flows than the other authorities, which reflects its size and sub-regional status.

Table 3.3 Migration containment: Ipswich, Babergh, Mid Suffolk & Suffolk Coastal

Origin (moves from)	Destination (moves to)			
	The four authorities	Elsewhere	Total moves from the four authorities	Origin containment
The four authorities	31,628	12,273	43,901	72.0%
Elsewhere	13,164			
Total moves to the four authorities	44,792			
Destination containment	70.6%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.17 For completeness, we have also examined whether a smaller clustering of authorities, starting with Ipswich as the 'seed', would form a better HMA. The table summarises the results of this (full results are provided in Appendix A) and shows that unless all four are included, the 70% threshold is not satisfied. We have also shown an alternative sequence of building up the client authorities.

Table 3.4 Migration containment summary: Ipswich, Babergh, Mid Suffolk & Suffolk Coastal

Potential HMA	Destination containment	Origin containment
Ipswich	61.9%	64.9%
Ipswich & Babergh	63.1%	64.9%
Ipswich & Mid Suffolk	61.6%	63.6%
Ipswich & Suffolk Coastal	68.4%	70.8%
Ipswich, Babergh & Mid Suffolk	64.7%	66.1%
Ipswich, Mid Suffolk & Suffolk Coastal	68.7%	70.5%
Ipswich, Babergh, Mid Suffolk & Suffolk Coastal	70.6%	72.0%

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.18 In summary, our testing of migration confirms an Ipswich HMA but slightly differently defined to that drawn by the NHPAU. We consider that the best fit HMA includes Ipswich, Babergh, Mid Suffolk & Suffolk Coastal. It excludes Braintree.

3.19 Excluding Braintree from this HMA also aligns with the Mid and North Essex HMA which PBA defined in 2015[11] and has been tested at appeal. This Essex HMA includes Braintree, Chelmsford, Colchester and Tendring.

Testing the NHPAU geography for Waveney

3.20 The NHPAU considered Waveney was either a self-contained HMA or an HMA in combination with Great Yarmouth. The tables below set out the containment results for these potential HMA scenarios.

Table 3.5 Migration containment: Waveney

Origin (moves from)	Destination (moves to)			
	Waveney	Elsewhere	Total moves from Waveney	Origin containment
Waveney	7,597	3,549	11,146	68.2%
Elsewhere	3,500			
Total moves to Waveney	11,097			
Destination containment	68.5%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

[11] http://www.colchester.gov.uk/CHttpHandler.ashx?id=22691&p=0

Table 3.6 Migration containment: Waveney & Great Yarmouth

Origin (moves from)	Destination (moves to)			
	Waveney & Great Yarmouth	Elsewhere	Total moves from Waveney & Great Yarmouth	Origin containment
Waveney & Great Yarmouth	16,012	5,772	21,784	73.5%
Elsewhere	5,519			
Total moves to Waveney & Great Yarmouth	21,531			
Destination containment	74.4%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.21 In isolation Waveney is close to the 'typical' 70% for self-containment, but containment is stronger in combination with Great Yarmouth.

3.22 Looking to Waveney's other neighbours, we have examined a three district HMA including South Norfolk. This is because there are a number of towns on either side of the boundary with Waveney (and Mid Suffolk), notably Diss, Eye, Harleston, Bungay and Beccles, which are likely to generate migration (and commuting) flows.

Table 3.7 Migration containment: Waveney, Great Yarmouth & South Norfolk

Origin (moves from)	Destination (moves to)			
	Waveney, Great Yarmouth & South Norfolk	Elsewhere	Total moves from Waveney, Great Yarmouth & South Norfolk	Origin containment
Waveney, Great Yarmouth & South Norfolk	17,194	8,838	26,032	66.0%
Elsewhere	8,535			
Total moves to Waveney, Great Yarmouth & South Norfolk	25,729			
Destination containment	66.8%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

Table 3.8 Migration containment: Waveney, Great Yarmouth, South Norfolk & Mid Suffolk

Origin (moves from)	Destination (moves to)			
	Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	Elsewhere	Total moves from Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	Origin containment
Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	20,814	12,834	33,648	61.9%
Elsewhere	12,555			
Total moves to Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	33,369			
Destination containment	62.4%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.23 Adding South Norfolk (and then Mid Suffolk) into a potential HMA has the effect of reducing containment. This is because, although South Norfolk has linkages with Waveney and Great Yarmouth (and Mid Suffolk), on closer examination these links are far exceeded by South Norfolk's links with other Norfolk authorities.

3.24 Next, we assess Waveney's links with the other four Suffolk authorities. For completeness, we have also reviewed migration containment between Waveney and Suffolk Coastal and Mid Suffolk; the results are contained in Appendix A.

Table 3.9 Migration containment, Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney

Origin (moves from)	Destination (moves to)			
	The four authorities plus Waveney	Elsewhere	Total moves from the four authorities plus Waveney	Origin containment
The four authorities plus Waveney	39,958	15,089	55,047	72.6%
Elsewhere	15,931			
Total moves to the four authorities plus Waveney	55,889			
Destination containment	71.5%			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.25 The testing above shows that, while Waveney is reasonably self-contained as a single district HMA, adding neighbours into the calculations, especially Great Yarmouth, and to a much lesser extent the other four client authorities, increases this self-containment.

3.26 While the NHPAU work did not link Waveney with the four authorities, we find that migration containment based on the 2011 Census for these five authorities is marginally higher compared to the containment for the four Suffolk authorities (Table 3.4).

3.27 So on this data alone Waveney could reasonably form a single district HMA, remembering the 70% threshold is only a rough guide. But the district helps form a slightly more self-contained HMA with neighbours. But whether or not this is either sensible or pragmatic depends on other factors including commuting and contextual indicators, which we explore further below.

Could the HMA be improved further?

3.28 For completeness, we have also considered the position of Forest Heath and St Edmundsbury in the HMA geography. The NHPAU groups these authorities together in both the single and strategic tiers. We do this by adding neighbouring authorities into our analysis to see how this improves the headline self-containment. Mathematically, a larger HMA will generally be more self-contained than a smaller one. But we look to see whether any improvement is to such a degree as to change our initial conclusions.

Table 3.10 Migration containment summary: adding Forest Heath and St Edmundsbury

Potential HMA	Destination containment	Origin containment
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Forest Heath and St Edmundsbury	71.9%	72.5%
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Forest Heath and St Edmundsbury	72.4%	73.0%

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex and PBA

3.29 This shows that including the two extra authorities does improve containment under both scenarios considered. However, closer examination of the flows to and from the two extra authorities shows it is linkages between each other that are the most significant component rather than linkage between any of the client authorities. For this reason, we do not consider Forest Heath and St Edmundsbury any further.

Drawing this together

3.30 Analysis of the NHPAU geography in the context of more recent Census data shows that, for the four authorities which the NHPAU grouped as an HMA with Braintree, the NHPAU-defined HMA no longer holds true. However, excluding Braintree from a

potential HMA means that, considered together, the four authorities met the 70% test and form a reasonable HMA in migration terms.

3.31 The position of Waveney is more complicated: as set out above, the NHPAU data does not link it to the other four authorities in the client group but examination of the 2011 Census shows that in migration terms, a five district HMA satisfies the 70% test. However, the improvement to containment from a four district HMA is marginal and examination of Waveney's other links, including the NHPAU geography, shows linkages with Great Yarmouth. It is also the case that Waveney is reasonably self-contained on its own.

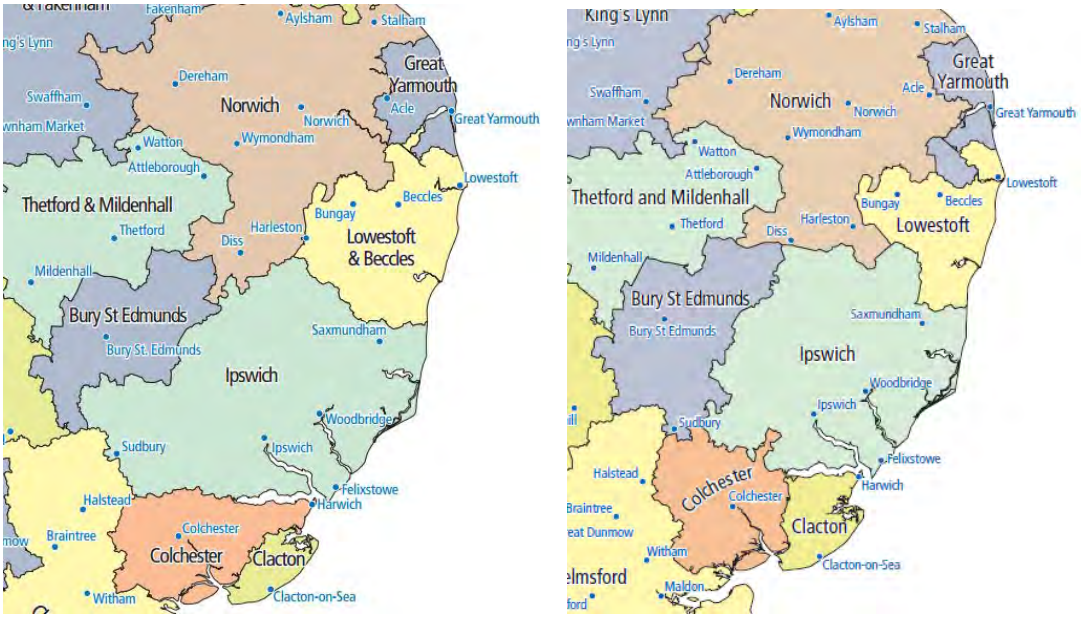
3.32 We do not come to a conclusion on how to treat Waveney on migration data alone. In the next section we consider commuting and the new travel-to-work areas.

Commuting

3.33 In considering commuting, we focus our analysis on the travel-to-work area (TTWA) geography. Within TTWAs commuting is as self-contained as possible. The calculations are undertaken at the national level and the resulting single-tier geography is the 'best fit' possible. It does not conform to LPA boundaries and is made up of middle-level super output areas.

3.34 In August 2015, new TTWAs were published by the ONS. These are based on 2011 Census data and supersede the 2001-based TTWA data which informed the NHPAU analysis. However, it is useful to consider how the geographies, and therefore commuting flows and linkages, have changed over time.

Figure 3.2 Travel to work areas 2001 (left) & 2011 (right)



Source: ONS

3.35 This shows that there have been shifts in the TTWA geography relating to the client authorities. Notably Ipswich's degree of influence has diminished as Bury St Edmunds and Chelmsford's have increased. There have also been changes in the

northern part of the area: Lowestoft's influence is decreased as Great Yarmouth's has increased. We look below at this in further detail.

Commuting containment

3.36 The PPG does not prescribe a commuting containment threshold to help define the HMA. We have adopted the ONS's definition of TTWAs that states that:

> *'The current criterion for defining TTWAs is that generally at least 75% of an area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area… However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.7% are accepted.'*[12]

3.37 In calculating the level of commuting self-containment we have used the 2011 Census data from ONS, but have not included two categories of worker recorded in the Census data because 'home workers' do not commute, and the data does not identify work destination locations for workers with 'no fixed [work] address'.

3.38 To retain consistency with the approach taken for migration containment, we firstly test the Ipswich, Babergh, Mid Suffolk and Suffolk Coastal grouping, and then bolt on Waveney. We then, as we did with migration, consider the position of Waveney in relation to Great Yarmouth.

Table 3.11 Commuting containment: Ipswich, Babergh, Mid Suffolk, Suffolk Coastal

Origin (trips from)	Destination (trips to)			
	The four authorities	Elsewhere	Total trips from the four authorities	Origin containment
The four authorities	137,448	36,513	173,961	79.0%
Elsewhere	23,452			
Total trips to the four authorities	160,900			
Destination containment	85.4%			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

3.39 This authority grouping shows a very high degree of containment, comfortably exceeding the indicative 75% threshold. Flows between Ipswich and Suffolk Coastal are particularly strong. This provides strong evidence that the four local authorities form one HMA.

3.40 As shown in the tables below, the addition of Waveney makes virtually no difference to commuting containment. Waveney has low levels of commuting with Ipswich, the grouping's main centre of population and jobs, which reflects its comparative

12 https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/traveltoworkareaanalysisingreatbritain/2016

remoteness. Conversely it has reasonably strong links with Suffolk Coastal towns such as Leiston and Aldeburgh.

Table 3.12 Commuting containment: Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney

Origin (trips from)	Destination (trips to)			
	The four authorities plus Waveney	Elsewhere	Total trips from the four authorities plus Waveney	Origin containment
The four authorities plus Waveney	168,690	44,856	213,546	79.0%
Elsewhere	28,392			
Total trips to the four authorities plus Waveney	197,082			
Destination containment	85.6%			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

3.41 Waveney's strongest links are with Great Yarmouth. This is shown clearly in the table below.

Table 3.13 Commuting containment: Waveney & Great Yarmouth

Origin (trips from)	Destination (trips to)			
	Waveney & Great Yarmouth	Elsewhere	Total trips from Waveney & Great Yarmouth	Origin containment
Waveney & Great Yarmouth	58,512	14,473	72,985	80.2%
Elsewhere	10,709			
Total trips to Waveney & Great Yarmouth	69,221			
Destination containment	84.5%			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

3.42 Comparing the two scenarios for Waveney shows similar containment levels, suggesting that commuting to/from Waveney is evenly spread, albeit the larger number of authorities in the first table will inevitably result in relatively higher commuter containment.

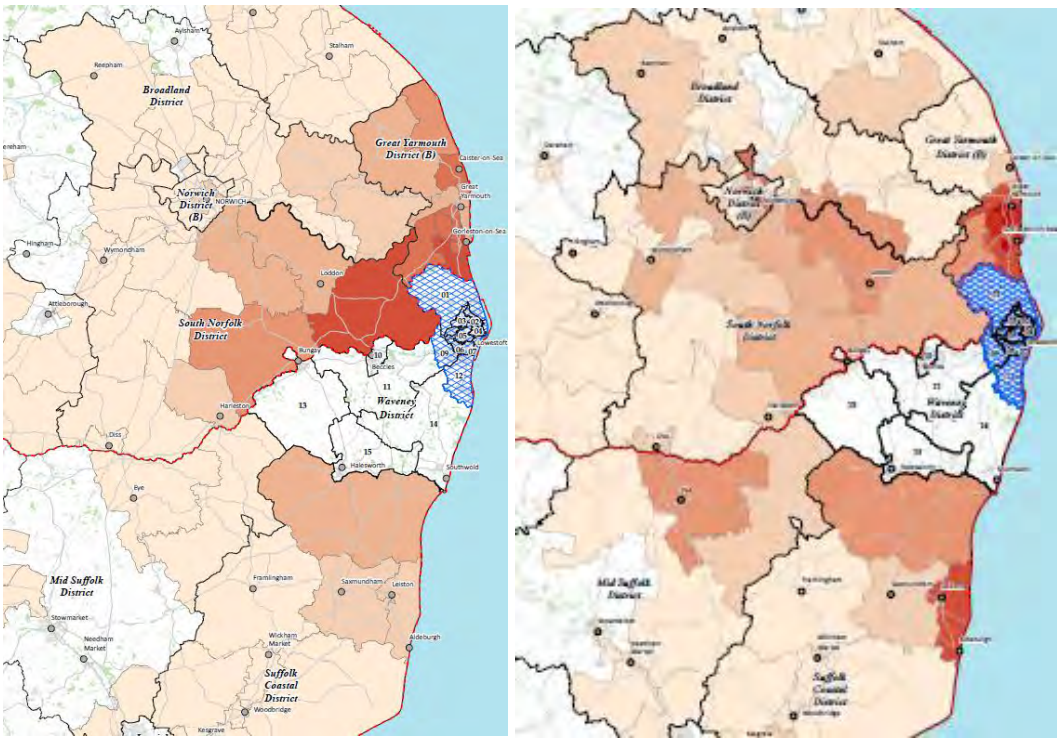
3.43 To inform our decision-making on the definition of the HMA, we have therefore looked in further detail at the nature of commuting patterns to and from Waveney by looking at the flows for the middle super output areas that make up the district.

3.44 This analysis has shown the district can be split into two parts which exhibit very different commuting patterns:

- North-east Waveney: focused around Lowestoft
- South-west Waveney: comprising the rural remainder

3.45 Looking first at north-east Waveney, we show the commuting links in the figure below (extracts from Appendix B).

Figure 3.3 North-east Waveney in-commuting (left) and out-commuting (right)



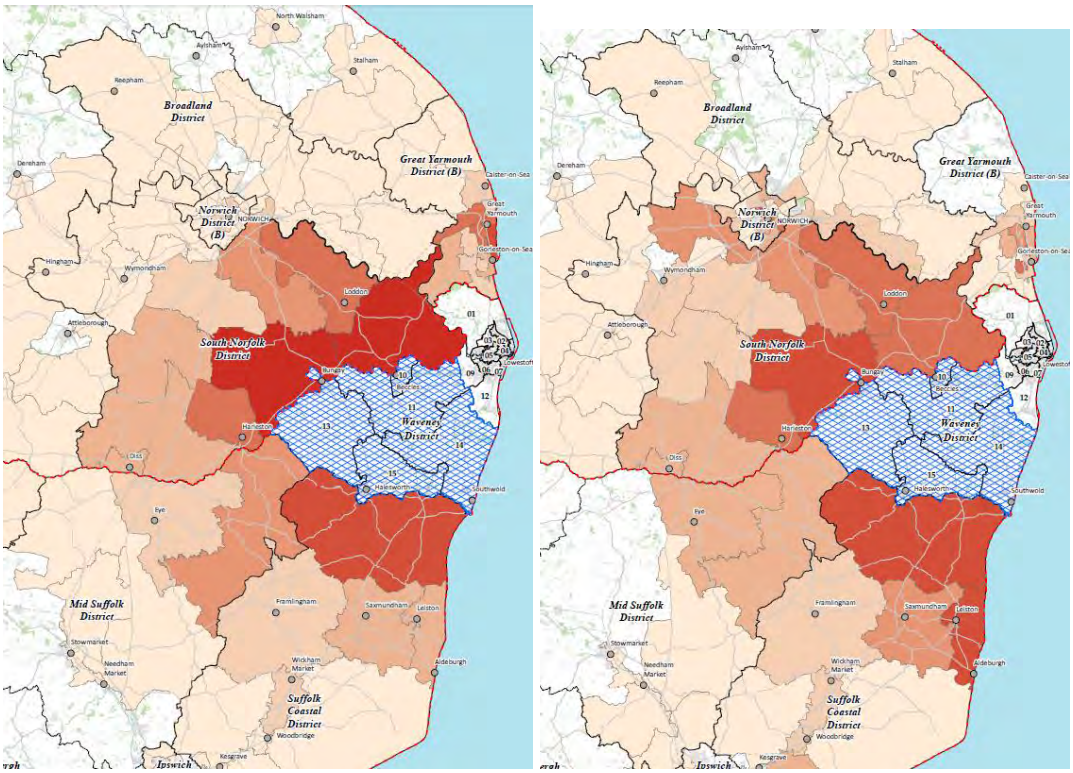
3.46 This shows that in relation to:

- In-commuting
  - Substantial majority of trips from the north (South Norfolk & Great Yarmouth)
  - Very low level of trips from Mid Suffolk or Suffolk Coastal
- Out-commuting
  - Greatest affinity to Great Yarmouth
  - But strong links also with Suffolk Coastal

3.47 Then turning to south-west Waveney, the figure overleaf shows the equivalent data. Specifically, it shows that:

- In-commuting data shows that the strongest links are with Waveney's immediate neighbours:
  - Particularly South Norfolk and Suffolk Coastal
  - Much lower links with Great Yarmouth
- Out-commuting
  - Greatest affinity to South Norfolk, and also to Mid Suffolk and Suffolk Coastal
  - As with in-commuting, much lower links with Great Yarmouth

Figure 3.4 South-west Waveney in-commuting (left) and out-commuting (right)



3.48 However, this analysis does not take account of where residents work. The table below splits the district in six sub areas focused on the main towns[13]. It does not show commuting to other destinations or those with no fixed workplace.

[13] These groups comprise the following OAs: Beccles & Worlingham (Waveney 010A-E, 011A, 011C-E), Bungay (Waveney 013A-C), Halesworth (Waveney 015B-D), Kessingland (Waveney 012B-D, including part of Bloodmoor), Lowestoft (Waveney 001-9, 012A, 012E-F) and Southwold & Reydon (OA Waveney 014A-C)

Table 3.14 Main places where workers reside in Waveney work

	Number of workers by output area group								
Output area group	Waveney	Great Yarmouth	Ipswich	Mid Suffolk	Suffolk Coastal	Broadland	Norwich	South Norfolk	Total
Beccles & Worlingham	4,263	286	38	71	199	108	370	426	5,761
Bungay	1,382	50	12	42	67	39	140	322	2,054
Halesworth	1,290	39	24		282	12	40	63	1,750
Kessingland	1,476	141	9	11	63	20	43	46	1,809
Lowestoft	20,039	3,214	167	173	470	323	811	523	25,720
Southwold & Reydon	1,029	34	12	6	65	2	27	16	1,191
Total	29,479	3,764	262	303	1,146	504	1,431	1,396	38,285

Source: ONS WF01BEW - Location of usual residence and place of work (OA level)

Table 3.15 Out-commuting from Waveney (% by output area group)

Output area group	% of total workforce population	% of OA's workforce travelling to each main local authority							
		Waveney	Great Yarmouth	Ipswich	Mid Suffolk	Suffolk Coastal	Broadland	Norwich	South Norfolk
Beccles & Worlingham	15%	74%	5%	0%	1%	3%	2%	6%	7%
Bungay	5%	68%	2%	0%	2%	3%	2%	7%	16%
Halesworth	5%	74%	2%	1%	0%	16%	0%	2%	4%
Kessingland	5%	83%	8%	0%	0%	4%	1%	2%	3%
Lowestoft	67%	79%	13%	0%	0%	2%	1%	3%	2%
Southwold & Reydon	3%	88%	3%	0%	0%	6%	0%	2%	1%
Total	100%	78%	10%	0%	0%	3%	1%	4%	4%

Source: ONS WF01BEW - Location of usual residence and place of work (OA level)

3.49 This shows that:

- Across the district there is a high degree of self-containment; Bungay has the lowest retention of workers (68%).
- Lowestoft accommodates the majority of the district's resident workforce (53%). It exports 13% of its working residents to Great Yarmouth.
- Beccles & Worlingham and Kessingland also export some of their workers to Great Yarmouth (5% and 8%) but overall only 10% of the district's workforce travels to Great Yarmouth

- The relationship with the other client authorities is not strong with only 3% of the district's workforce travelling there, mainly to Suffolk Coastal from Halesworth, to work[14].
- The relationship with Norfolk districts is stronger: 9% of the district's resident workforce commutes out to the three other Norfolk districts listed. Bungay, Beccles & Worlingham and Lowestoft have the strongest links.

3.50 So Waveney is a district of two parts in commuting terms: while Lowestoft has strong links with Great Yarmouth, the rest of the district has a much broader spread of out-commuting to the other Norfolk authorities and Suffolk Coastal.

What does this mean for defining HMAs?

3.51 The four authorities comfortably satisfy both the migration and commuting containment tests. Adding Waveney into this has a broadly neutral impact in both tests.

3.52 For Waveney the data is much more difficult to interpret. Waveney has strong links with Great Yarmouth and South Norfolk, as well as to Suffolk Coastal. In commuting terms, it satisfies the self-containment test if combined with Great Yarmouth; however, this combination does not quite meet the necessary migration threshold. On the other hand, the combination of Waveney and Great Yarmouth does.

3.53 We consider these findings further below.

House prices

3.54 Another measure used to define HMAs is house prices. The PPG states:

'This analysis [of house prices] uses house prices to provide a 'market-based' reflection of housing market area boundaries. It enables the identification of areas which have clearly different price levels compared to surrounding area'[15]

3.55 In simple terms house price 'cliffs' can be used to help define an HMA.

[14] Babergh is not listed separately because the level of commuting from Waveney is low

[15] 2a-011-20140306

Figure 3.5 House price geography

Source: Zoopla

3.56 In this instance, the house prices are more complex and we think they are not that helpful for assisting with our definition of the HMA geography. The clearest pattern discernible relates to the higher prices in Suffolk Coastal, shaded yellows and reds above, coinciding with the AONB.

3.57 The coast itself shows higher average prices, extending into Waveney (Southwold). Rather than informing the HMA definition, we will explore this further in the market signals.

Neighbouring local authorities

3.58 Before concluding we briefly look at the neighbouring local authorities' evidence bases. Given the conclusions above, we have not interrogated the evidence bases relating to either the client group's southern neighbours (the north Essex authorities) or that of St Edmundsbury and Forest Heath.

3.59 There are two key documents that have been reviewed and assist us in reaching a conclusion on how to treat Waveney in the definition of HMAs:

- Central Norfolk SHMA (ORS, January 2016)
- Great Yarmouth SHMA (HDH Planning, November 2013)

Central Norfolk SHMA

3.60 This study identifies an HMA that has Norwich as at its core and includes Broadland, South Norfolk and 'also includes significant parts of both Breckland and North Norfolk districts'[16].

3.61 In reaching this conclusion, in the same way as we have tested different HMA configurations, the study considered the relationship between those authorities and Waveney, Great Yarmouth and Mid Suffolk. It did not conclude that these districts should be included within a Central Norfolk HMA, nor that any of the Central Norfolk districts related better to these.

3.62 As we have shown above, there are some migration and commuting links between South Norfolk and Waveney. This was most relevant for commuting; we showed that there were links with Waveney but the Central Norfolk SHMA confirms that South Norfolk's commuting links are stronger with other Norfolk authorities. Added to this, our own analysis showed that including South Norfolk diluted migration containment. On this basis, we do not explore the option of including South Norfolk any further.

3.63 The Central Norfolk SHMA also includes the majority of the Broads Authority and identifies an OAN for the Broads Authority, which necessarily includes part of Waveney's OAN.

Great Yarmouth SHMA

3.64 The Great Yarmouth SHMA predates the publication of the PPG and therefore the method that we follow now in defining HMAs, not least because the definition of HMAs has changed.

3.65 It is important to note that many older SHMAs were commissioned for a very different purpose to the new-style SHMAs. The main product of a 'new style' SHMA is to advise on the housing market area's NPPF- and PPG-compliant housing need, i.e. its OAN and possible housing targets (including a policy-led affordable housing uplift). They form the main evidence base to inform a local authority's housing target. For this reason, this study does not consider the findings of the Great Yarmouth SHMA in any detail.

3.66 Since that document was published though, Great Yarmouth adopted their Local Plan Core Strategy (December 2015). Plans and evidence are often drafted at differing times and when starting from the perspective of a single district study (as Great Yarmouth) it is difficult to find the universally 'best fit HMA' for every relevant LPA. The same criticism can be made of any study (including this) and is one drawback of the current PPG which lacks a nationally consistent HMA definition; with each LPA largely free to identify its own geography.

[16] Para. 2.64

Conclusions

3.67 Our analysis has shown statistically we can identify an HMA comprising the client authorities. However, given the additional analysis we have undertaken in relation to commuting patterns, we think that, at face value, this fails a 'common sense' check.

3.68 The data points to a strong Ipswich HMA; where commuting and migration are self-contained. This geography does not conflict with other established HMAs and the client group consider contextually this is an appropriate HMA. The districts look towards Ipswich to meet higher-order service needs and have a track record of working together and particularly to meet the development needs of Ipswich.

3.69 Waveney relates reasonably poorly to this Ipswich-centric HMA. The district has links with its rural neighbours in the Ipswich HMA but not with Ipswich itself. Contextually none of the towns in Waveney look to Ipswich. Lowestoft is a considerable service centre in its own right and the district towns will either look to Lowestoft or Norwich to meet their needs. We note for example that most of the Waveney towns and many of the villages are connected to Norwich by frequent bus routes but links to Ipswich are much less frequent or non-existent.

3.70 So it would not appear sensible or pragmatic to conclude that Waveney should form part of the Ipswich HMA.

3.71 The data shows that, in isolation, Waveney could form a reasonable HMA. The addition of Great Yarmouth may result in greater containment, which could be considered a statistically more robust HMA. But the downside to this alternative HMA is that it would include the distinctive Waveney towns, such as Beccles, Bungay and Southwold, in an HMA with Great Yarmouth - a town with which they are poorly-related in statistical and contextual terms.

PART B: IPSWICH HMA

4 IPSWICH HMA PAST DEMOGRAPHIC CHANGE

Introduction

4.1 Before considering the future population of the Ipswich HMA (IHMA) authorities we must first look at the past. This is important because demographic projections are derived by rolling forward into the future what has happened in the past– 'projecting' past trends in the components of demographic change for different demographic groups. It is normal to find that different 'vintages' of population and household projections only differ in their results because they incorporate a different base period with a different base population or migration profile.

4.2 In this section we focus on demographic change up to 2015, using the most recent release of data from the ONS: the 2015 mid-year estimates (MYE).

What has changed since 2001?

4.3 The population projections comprise two elements: natural change and migration. Natural change is the difference between births and deaths. Migration can be into or out of the district, and it can be domestic (England and UK cross-border) and overseas (EU and outside EU). To provide background to the population projections, we consider both within analysis of past population growth below.

Table 4.1 IHMA change analysis 2001-15

LPA	2001-02 Population	Births	Deaths	Natural Change	UK Net Migration	Oversea Net Migration	Other	2014-15 Population
Ipswich	117,156	24,789	16,128	8,661	-2,433	6,183	6,033	135,600
Babergh	83,538	11,313	12,428	-1,115	5,748	-143	1,187	89,215
Mid Suffolk	87,015	12,811	12,273	538	10,654	119	1,306	99,632
Suffolk Coastal	115,239	14,590	19,162	-4,572	14,090	740	-445	125,052
IHMA	402,948	63,503	59,991	3,512	28,059	6,899	8,081	449,499

Source: ONS MYE

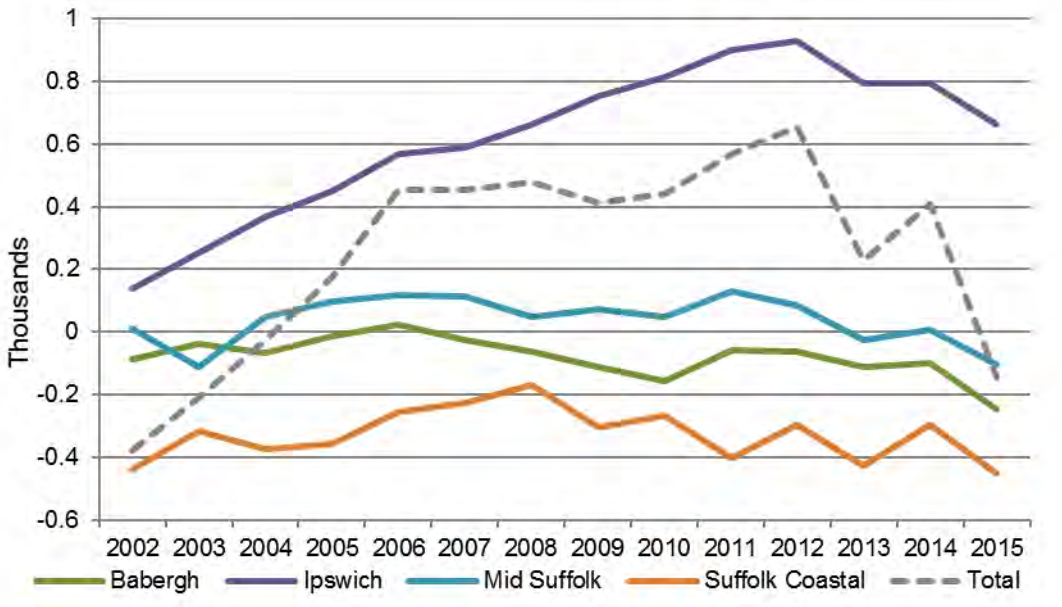
4.4 The table above shows the population change for each authority and a total for the IHMA, over the period 2001-15 according to the MYE. In the HMA there was a 12% increase in population, mostly attributed to UK net migration.

4.5 Ipswich had the highest level of population increase, at 16%. It is also the only authority to experience higher overseas net migration than UK net migration. The population in Suffolk Coastal has been the most affected by UK migration, with an increase of 14,090 between 2001-15.

Natural change

4.6 The chart below shows natural change for the authorities and a total for the IHMA. Over the period 2001-15, the IHMA authorities gained 3,512 people through natural change. Ipswich experienced a consistent increase in natural change until 2012, when it started to decrease. Since 2001 Ipswich has gained 8,861 people through natural change. All other authorities remain fairly stable, with most beginning to decline by 2010-11. In recent years all the authorities have experienced similar levels of negative natural change.

Figure 4.1 IHMA natural change 2001-15

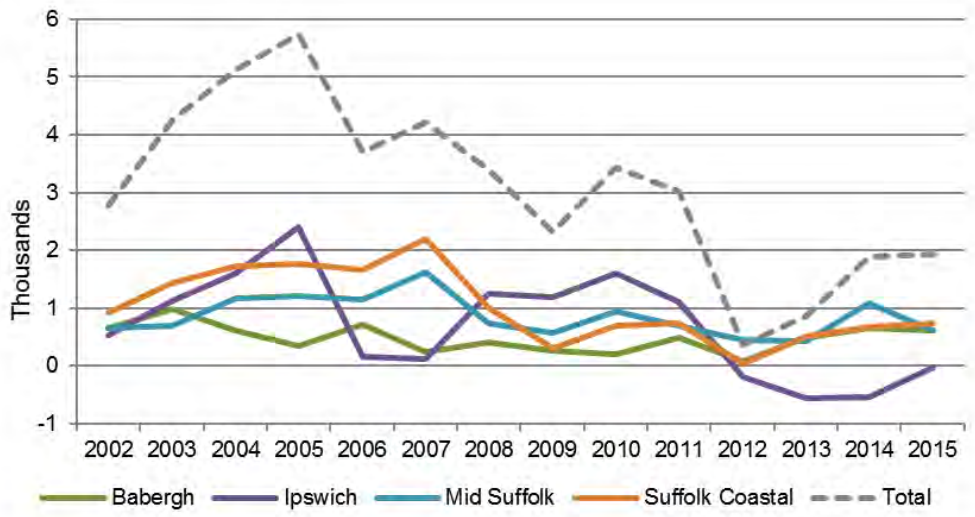


Source: ONS MYE (2015)

Migration

4.7 The chart below shows net migration over the period 2001-15 for each of the authorities and as a total for the IHMA. In 2005 there is a clear peak in the net migration of the HMA as a total and in Ipswich. There was a second, smaller overall peak in 2007; the same year that Mid Suffolk and Suffolk Coastal experienced their highest levels of net migration.

Figure 4.2 IHMA Net migration 2001-15



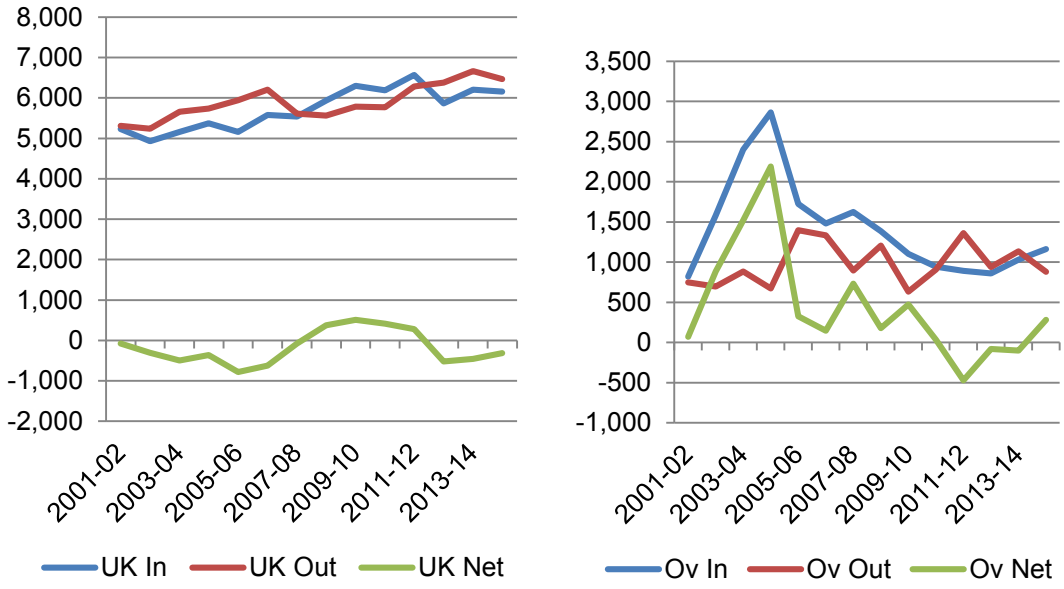
Source: ONS MYE (2015)

Ipswich

4.8 As detailed above, Ipswich is the only authority to attract more overseas net migration than UK domestic. The sharp increase in overseas migration can clearly be seen in the graph below, which shows a steep increase in 2004-05. The migration from overseas locations to Ipswich has averaged 1,419 per year.

4.9 If the net migration patterns are compared to the natural change displayed in Figure 4.1, the persistent increase in natural change in Ipswich appears to be related to the peak in migration in 2005, as shown below.

Figure 4.3 Ipswich: UK domestic (left) and overseas (right) migration



Source: ONS MYE (2015)

4.10 The graph above also shows domestic inflow and outflow migration patterns. It shows that they have followed similar trajectories, with the exception of 2008-09 where

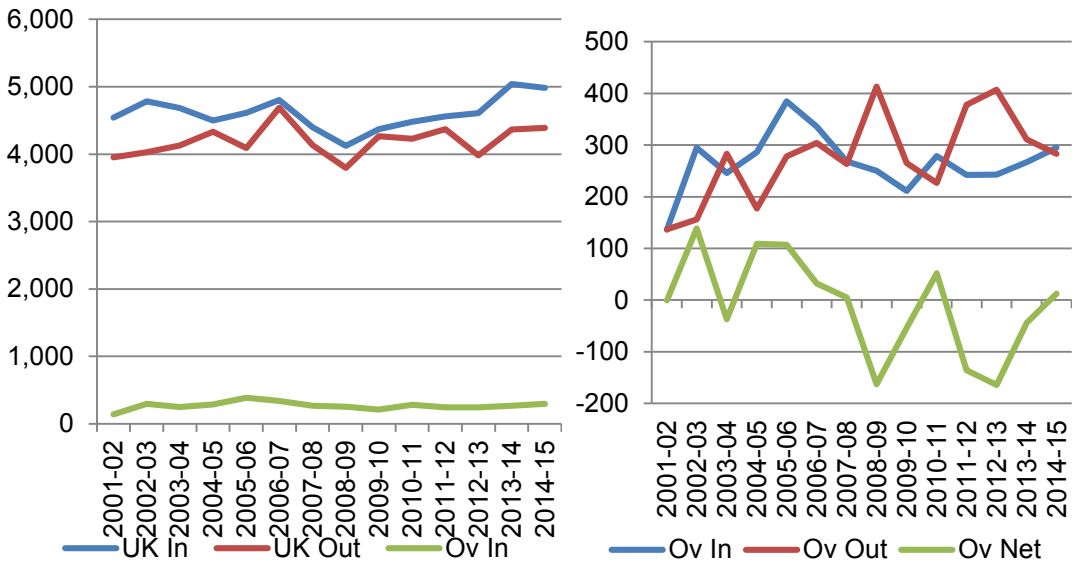
inflow increased sharply and outflow decreased. Overall there was a net decrease in the domestic migrating population by 2,433.

4.11 With the exception of the period between 2008-12, outwards domestic migration has always exceeded inwards migration to Ipswich. Following the sharp increase in overseas migration in 2004-05, it has generally been decreasing since. However, since 2013 overseas migration into Ipswich has started to increase again, albeit at a more gradual rate.

Babergh

4.12 The charts below show that domestic migration to Babergh has always exceeded outflow. Following a decline in 2006-07, in-migration has been on the rise. The migration outflow pattern experiences significantly more fluctuations than the inflow, with a second decrease in 2012-13. Overall, the total net domestic migration in Babergh between 2001-15 has resulted in an additional 5,748 people.

Figure 4.4 Babergh: UK domestic (left) and overseas (right) migration



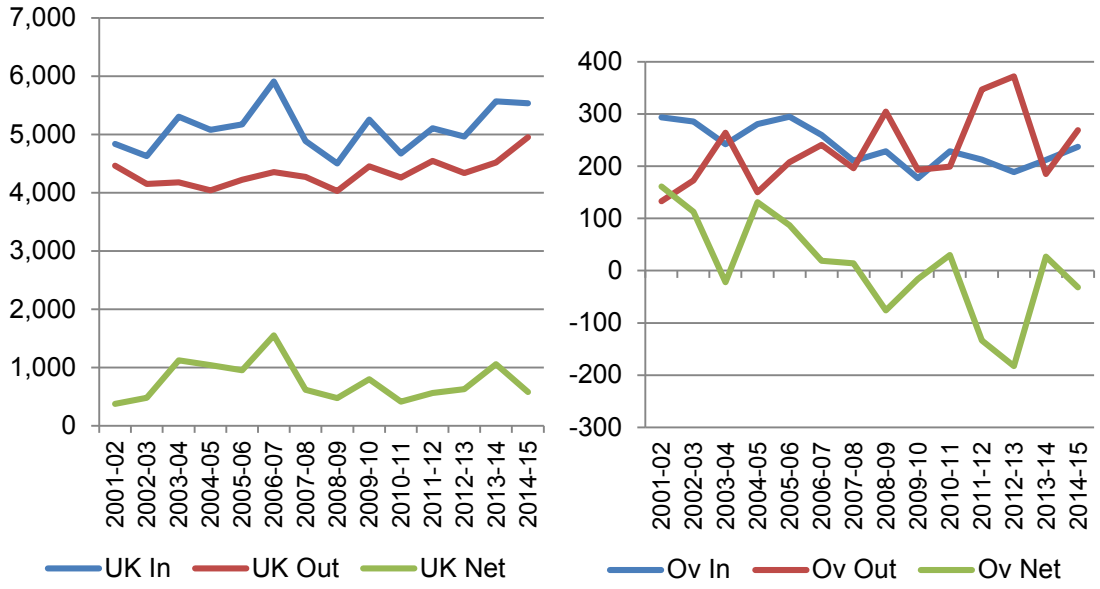
Source: ONS MYE (2015)

4.13 The charts show fluctuations in the overseas migration to Babergh; but because the absolute level of overseas migration is lower than overall, this type of migration makes a very small difference to the total figures, only resulting in 143 fewer people between 2001-15. Inflow migration was typically above outflow before 2008, but following a period of decline, outflow migration has been on average higher ever since.

Mid Suffolk

4.14 The migration data tells us that the population in Mid Suffolk increased by 10,654 as a result of domestic migration.

Figure 4.5 Mid Suffolk: UK domestic (left) and overseas (right) migration



Source: ONS MYE (2015)

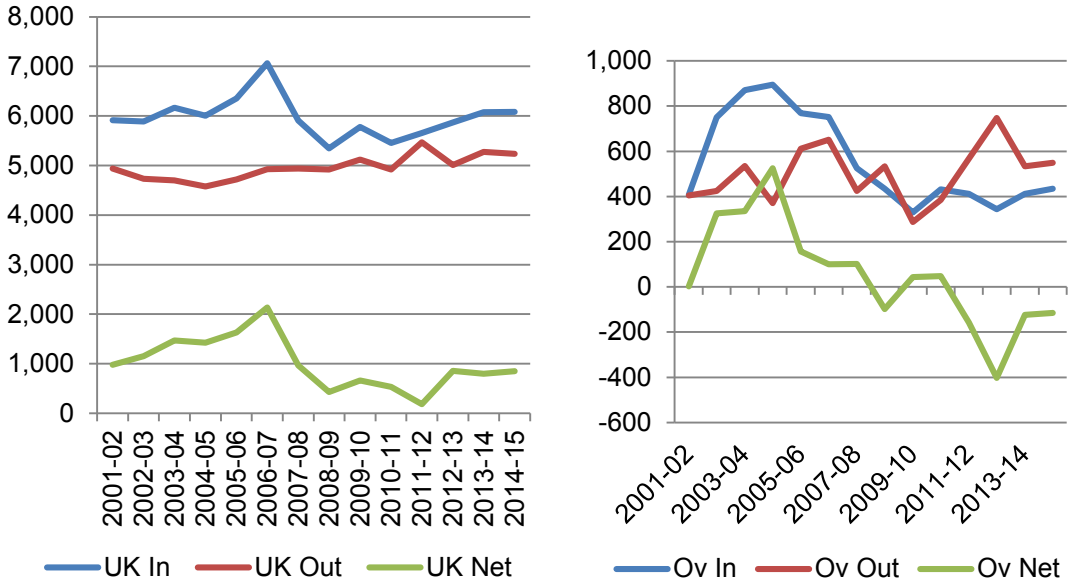
4.15 The graphs show us that most of this domestic inflow occurred between 2003-07, where inflow was high. In line with the economic downturn, there was a period of sharp decline in 2008, and since then inflow has fluctuated significantly, but has entered into a period of gradual incline in recent years. Outflow was relatively stable at between 4,000 and 4,500 people per year between 2001-14, but has been above 4,500 ever since.

4.16 Despite the major fluctuations in overseas migration, the quantum of inflow and outflow are almost the same, resulting in only 119 additional people between 2001-15.

Suffolk Coastal

4.17 Of all the HMA authorities Suffolk Coastal experienced the greatest increase in population as a result of domestic migration; 14,090 in total. This figure represents 11.3% of the 2014-15 population. The most significant period of inward domestic migration was between 2002-08, since then inflow and outflow migration have been more in line with one another.

Figure 4.6 Suffolk Coastal: UK domestic (left) and overseas (right) migration



Source: ONS MYE (2015)

4.18 In a similar pattern to the domestic migration, overseas migration for Suffolk Coastal was most significant between 2001-08, where inflow was high and outflow was low. As a result of a sharp increase in outflow migration 2011-15, Suffolk Coastal only gained 740 additional people as a result of overseas migration.

Unattributable population change

4.19 The data discussed above is difficult to interpret because there is a known error in the pre-census ONS population estimates, Unattributable Population Change or UPC. The UPC is discussed in detail in Appendix C. It is a balancing item that reconciles the 2001 and 2011 Censuses with the ONS estimates of migration in between the Censuses.

4.20 The IHMA population growth of 46,551 people includes a UPC gain of 7,799 in the period 2001 to 2011. The UPC is that part of population growth which is not accounted for by ONS's estimates of births, deaths and migration between 2001 and 2011. Since the recording of births and deaths in this country is very accurate, this discrepancy must be due to migration – whether international, domestic (within the UK) or both.

4.21 The table below shows the UPC for each authority in the client group. These figures are outside the components of change discussed above; including UPC as part of the migration analysis would, for the four authorities, mean the overall flows were higher by 7,799 in the years before 2011.

Table 4.2 UPC across the IHMA

	Ipswich	Babergh	Mid Suffolk	Suffolk Coastal	Total
2001-2	534	70	122	-54	672
2002-3	562	99	110	-50	721
2003-4	576	101	69	-77	669
2004-5	578	74	34	-177	509
2005-6	616	91	119	-129	697
2006-7	606	93	63	-34	728
2007-8	597	132	111	-67	773
2008-9	632	94	173	-29	870
2009-10	609	160	160	-14	915
2010-11	652	189	258	146	1,245
Total	5,962	1,103	1,219	-485	7,799
Average p.a. 2001-11	596	110	122	-49	780

Source: ONS MYE

4.22 In Ipswich, Babergh and Mid-Suffolk the UPC is consistently positive throughout the period, and in Suffolk Coastal it is consistently negative (except for one year).

4.23 In order to make robust population projections, we need to consider whether the UPC is part of the past population trend that should be projected into the future, or alternatively an error which the projections should ignore.

Summary

Ipswich

4.24 The population in Ipswich in 2015 is 16% higher than it was in 2001, the greatest increase of the client authorities. This increase is due to overseas net migration in the early part of the study period, followed by an increase in natural change. With the exception of a period between 2008-11, net domestic migration in Ipswich has always been negative.

4.25 The UPC figure in Ipswich is also the highest in the study area, at 5,962 people. Ipswich is also the area with the most overseas migration, and this probably explains the large size of the UPC. Although as noted earlier the UPC may be due to either domestic or overseas migration, or both, the evidence suggests that much of it relates to people who were originally international in-migrants. It may be that the ONS estimates miscounted these international arrivals, assigned the arrivals to the wrong local authority areas, or miscounted the domestic migration that occurred later when the people concerned moved house within the UK.

Babergh

4.26 Babergh has experienced a 7% population rise in the period 2001-15. This is mostly as a result of domestic migration, which has remained fairly consistent throughout the study period. Additional population was also gained from UPC, which was calculated as 1,103 over the study period. Overseas migration and natural change were negative and served to mute the extent of total population growth.

Mid Suffolk

4.27 Mid Suffolk's population increased by 14% between 2001-15, primarily due to domestic migration. Mid Suffolk is the only client group authority which experienced population growth from natural change, domestic and overseas migration, and UPC (1,219 people). Population growth was strongest at the beginning of the study period.

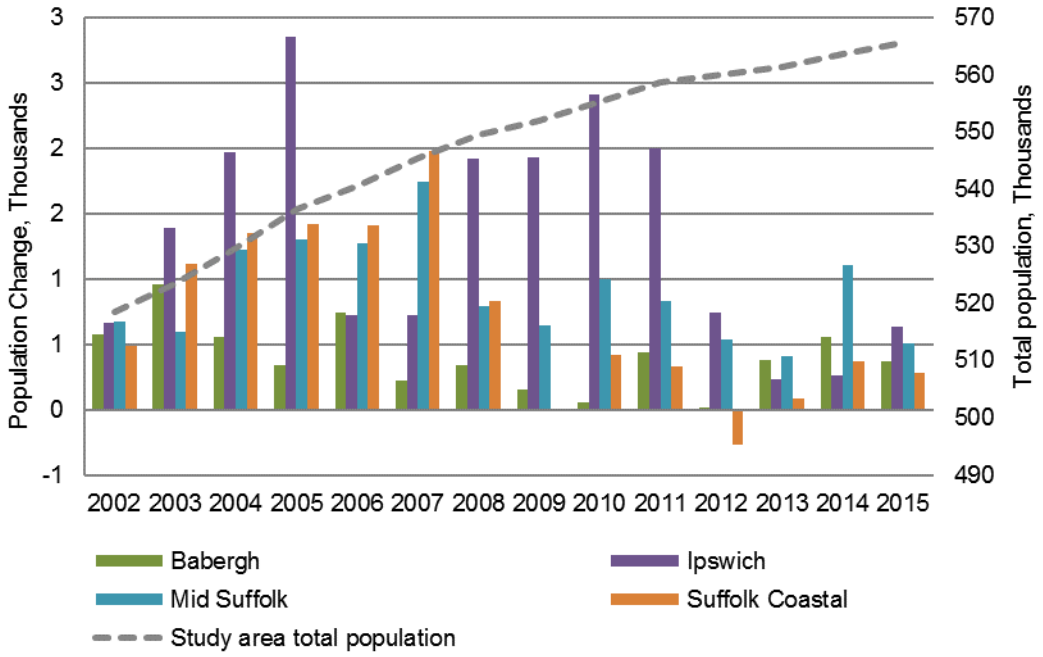
Suffolk Coastal

4.28 Domestic migration into Suffolk Coastal was the highest of the study area authorities, as it accounts for 11.3% of the 2015 population. The growth from domestic migration was most significant during the early stages of the study period. Natural change resulted in a 4,572 decline in population between 2002-15. Population also decreased as a result of UPC, albeit only by 485 people over the period 2001-11.

IHMA

4.29 Overall, the HMA continues to experience persistent population growth (Figure 4.7), although this has slowed down in recent years. The rapid period of population growth between 2001-05 was due to high levels of domestic and overseas migration. This peaked in 2004-05, when net migration added 5,737 people to the HMA. In recent years, overseas migration has declined, as has natural change.

Figure 4.7 IHMA population change 2001-15



Source: ONS MYE (2015)

4.30 Between 2001 and 2011 the UPC amounts to 7,799 people i.e. people who were resident in the area in 2011 but were not accounted for by ONS estimates of migration and natural change over the period. The ONS Data Tool suggests that a main cause of the UPC is mis-recorded domestic in-migration, whereby people moved to the area but were not recorded in estimated migration flows.

4.31 The PPG provides no advice on how to manage this error in a SHMA. At examinations elsewhere it has often been suggested that UPC be omitted from projections because that is what ONS have done when preparing their official projections. However, it is possible that the UPC is mis-recorded migration, or equally an anomaly within individual authorities, and this is a valid consideration in our projections. In the next chapter we consider the impact of making this UPC adjustment in our projections.

5 IPSWICH HMA DEMOGRAPHIC EVIDENCE

Method

5.1 In line with the PPG, the starting point of our objective assessment of housing need is the official household projections from the Department for Communities and Local Government (CLG), which are derived from the sub-national population projections (SNPP) produced by the ONS. The SNPP show future population by local authority area and are normally released at two-year intervals, with additional releases in response to new data – recently the 2011 Census. The CLG translates the population into households. The projected growth in household numbers, with a small adjustment for vacant and second homes, is used as the measure of housing need.

5.2 The official projections, like all projections, are trend-driven – that is, they roll forward (project) past trends into the future. Accordingly, still following the PPG, we test and amend them by looking at alternative projection scenarios that adjust for:

- Technical flaws in the official modelling, including:
  - Superseded or otherwise inaccurate historical data - projections are only past trends rolled forward, so a projection based on the wrong trends will be inaccurate);
  - Anomalies in the modelling – the official models are very complex, mainly because they cover hundreds of local authorities; even if the models are accurate 'on average', they will not necessarily be accurate for every single authority in every single year.
- External (non-demographic) factors that bear on demographic change but are not captured in the projections, because they are likely to differ in the future from what they were in the past – in particular the macroeconomic climate.

5.3 For any geographical area, the change in housing numbers is the outcome of three components: The first two factors, natural change (equal to births minus deaths) and migration (UK and international) jointly determine population change. The third factor, which turns population into households, is the household representative rate (HRR), also known as household formation rate or headship rate. Alternative scenarios are mostly based on varying assumptions about migration and household formation. In contrast to natural change, these factors are difficult both to measure for the past and even more difficult to predict for the future.

5.4 Later in this chapter we will sensitivity test the projections and consider alternative scenarios to deal with any factors that the projections do not capture, in line with the PPG. This includes scenarios with UPC included.

5.5 It is important to note that in testing the projections and looking at alternative scenarios, the PPG's starting point is the official projections. The PPG advises that *'the household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are*

not captured in past trends[17] (our emphasis). This testing does not mean that there should be a departure from the official projections; indeed, part of the logic of the official projections is they are a nationally-consistent view of population and household growth across the country.

Official releases

5.6 The official demographic projections are issued in two separate publications:

- ONS produces SNPP, which show population by age and sex, based on rolling forward past rates of natural change (births minus deaths) and migration for each demographic group.
- CLG then converts each SNPP into household projections.

5.7 The factor that turns population into households as mentioned earlier is the household representative rate, or HRR. For each demographic group (combination of age and sex), the projected HRRs roll forward past trends. The resulting household numbers, with a small adjustment for vacant and second homes, are used as a measure of future housing demand, or objectively assessed need.

Recent releases

5.8 The NPPF, published in March 2012, advised that the official CLG household projections should be the starting point for assessing housing need. However, at that time, and until recently, we did not have a full set of recent projections that were fit for purpose.

5.9 The 2008-based projections were increasingly out of date and known to be erroneous. The Census when reported did not support the expected (projected) population of household structure. Effectively the Census disproved the projections. The subsequent 2011-based projections, published in 2013, were labelled 'interim' because of data limitations, and they only ran to 2021.

5.10 In 2015 CLG produced 2012-based household projections ('CLG 2012'), which were derived from the 2012-based ONS SNPP and superseded earlier versions. In order to model future household HRRs, the CLG 2012 projections used the same method as CLG 2011, but used a different starting point - in that they are based on revised estimates of actual HRRs at 2011, which take account of the 2011 Census results.

5.11 Finally; in 2016, the CLG released the 2014-based household projections, which are derived from the 2014-based population projections and of course superseded earlier versions.

5.12 The household projections, including HRRs, were calculated using the same method as the 2012s although used two years' of additional data. However, as we discuss in detail below, the household projections use a very long series of data (1971 onwards) and so the introduction of two years' of additional data is not significant.

[17] Paragraph: 015 Reference ID: 2a-015-20140306

5.13 As noted earlier, the PPG advises that the CLG household projections should form the starting point of housing needs assessments. But at the time of writing the PPG also advises that the 2012-based projections are the most up-to-date estimate of future household growth. This advice has not been updated following the release of 2014-based projections. We believe that this is an oversight, as common sense suggests that studies should use the latest projections.

5.14 Therefore, in this study we take the 2014-based CLG projection as our starting point, though we also use the 2012-based version, as a sensitivity test. In the next section we will test alternative scenarios which are 2015-based.

5.15 The base year 2014 was chosen because it is the base year of the latest official demographic projections. It may be helpful to note that this choice of base year does not have any bearing on the start date of the Local Plan housing requirement. That start date could be any date up to and including 2015 – the latest year for which we have actual demographic data (the MYE).

Population projections

5.16 The table below sets out the official SNPP 2014 projections for each authority, over the period 2014-36. For the IHMA the population is projected to increase by 42,692 people (1,941 p.a.). Projections show that natural change will be negative in all authorities except Ipswich. The population increase can be attributed to migration, which over the period 2014-36 will bring an additional 51,541 people into the area.

Table 5.1 IHMA sub-national population projections 2014-36

LPA	2014 population	Natural change	Net migration	Total change	2036 population
Ipswich	134,966	15,294	-2,000	13,294	148,260
Babergh	88,845	-7,325	15,410	8,086	96,931
Mid Suffolk	99,121	-3,578	16,631	13,053	112,174
Suffolk Coastal	124,776	-13,241	21,500	8,259	133,035
IHMA Total	447,708	-8,850	51,541	42,692	490,400

Source: SNPP 2014 (ONS)

5.17 It must be noted that the SNPP do not take account of UPC. In our alterative projections scenarios in the next section we will test the impact of the UPC.

Household projections

5.18 Over the projection period, CLG 2014 (Table 5.2) shows the number of households in the HMA increasing by 31,751 (1,443 households p.a.). Mid Suffolk is expected to experience a 21% increase in households, this is significantly higher than any other authority in the study area.

Table 5.2 IHMA household projections 2014-36

LPA	2014 households	Total household change 2014-36	2036 households	Per annum household change
Ipswich	58,469	8,687	67,156	395
Babergh	38,477	6,104	44,581	268
Mid Suffolk	41,935	8,830	50,765	401
Suffolk Coastal	54,578	8,130	62,708	370
IHMA Total	193,459	31,751	225,210	1,434

Source: ONS/CLG 2014

Household representative rates

5.19 As noted earlier, HRRs are the factor that turns population into household numbers. The HRR is the proportion of people who are household representatives (formerly known as heads of household). Since each household has one representative, the number of these representatives equals the number of households. For the household population as a whole the HRR is the inverse of average household size – so that, for a given population, higher HRRs mean more households and a greater housing need.

5.20 In the CLG projections, future HRRs are based on rolling forward past trends for each demographic group. The base period being rolled forward in this case is very long, starting at the 1971 Census. Across England CLG 2012 shows lower HRRs, and hence fewer households and smaller housing need, than the previous full version, CLG 2008 (2011-based projections were published in between but were badged 'interim'). This is because the Census found considerably lower HRRs, and hence fewer households than the 2008 projections expected, and CLG 2012 rolls forward this more subdued household formation into the future.

5.21 Some analysts consider that these lower rates are permanent. Others maintain that they are due to the last recession and its aftermath, and household formation in the long term will return towards the higher rates projected in 2008, either fully or partially.

5.22 The issue is discussed at length in two recent academic articles, respectively by Prof Ludi Simpson[18] and by Neil Macdonald and Prof Christine Whitehead[19]. Both articles provide in depth analysis of the 2008 and 2012 projections. The first article finds that:

> *'[The] cause of reduced household formation [in the 2012 projections against the 2008 ones] are varied, began before the recession, and mostly are likely to continue with or without the recession.'*

[18] L Simpson, *Whither household projections*? in Town and Country Planning, December 2014, Vol 83

[19] N Macdonald and C Whitehead, *New estimates of housing requirements in England, 2012 to 2037* in 'Tomorrow
Series Paper 17' Town and Country Planning, November 2015

5.23 The causes referred to include:

- *'a sustained increase among young people not leaving home' which began at the turn of the century and accelerated after 2008;*
- *the introduction of student fees from 1998;*
- *the increase in precarious employment, including the rapid growth of part-time work;*
- *the long-term increase in the number of childless women, … which increased the number of smaller households, [and which] stopped and has fallen since 2000; and,*
- *the increasingly older formation of couples or families, which had increased the number of single-person households in the 1980s and 1990s, [and] has levelled out since 2001'.*

5.24 Prof Simpson concludes that some of these factors may be reversed, but the first three 'appear at the moment as fixed circumstances of the policy and economic environment'. Consequently '*we are not in a position to expect further increases in household HRRs of the same kind* [as suggested in the 2008-based projections] *…. The future in the UK is likely to be a continuation of precarious household formation. It will probably be lower than once projected and carry more uncertainty*'.

5.25 In the second article listed above, Macdonald and Whitehead endorse these conclusions. They add that there are further factors to suggest that household formation could be even lower than the 2012 official projections show – including welfare reforms and rising student debt that had not yet occurred at the time of the 2011 Census and are not taken into account by the 2012 projections.

5.26 It is also important to note that, although the CLG 2012 shows lower HRRs than CLG 2008, it still shows improving HRRs overall. The authors show that, while rates increase for some groups and fall for others, '*there will be more 'winners' than 'losers' by a ratio of 3:1, so overall housing formation rates will improve'.* This means that, on balance, more people will have '*an increased chance of setting up their own household'.*

5.27 Macdonald and Whitehead conclude that the 2012 projections:

> *'can be taken as a reasonable indication of what is likely to happen to household formation rates if recent trends continue. This is because, although economic growth might be expected to increase the household formation rate, there are both longer-term structural changes and other factors still in the pipeline (such as welfare reforms) that could offset any such increase.'*

5.28 The research quoted above reinforces the view of the PPG. At national level the HRRs shown in CLG 2012 are the best information available at present. Far from reflecting underlying long-term trends, the rates that CLG projected in 2008 represented an over-optimistic view which has since been refuted by real-life evidence.

5.29 To sum up, authoritative studies have found that there is no justification for a national adjustment to the CLG 2012 HRR, to compensate for the impact of the recession. Logically the same applies to the CLG 2014 rates. CLG 2014 is derived using the same method as 2012, and because it adds just two points to a long series of historical data, the final result is very similar.

Comparing HRRs

5.30 In this section we compare projected HRRs in the HMA with national averages. If rates in the HMA were lower than these averages, this could suggest that the projections carry forward the impact of a local supply shortage – although such evidence is difficult to read, because local differences in HRRs depend on many factors unrelated to the housing market or specifically to housing supply.

5.31 To see if there is evidence of local supply shortages, we examine the 2036 HRRs shown in the CLG 2014 projections and compare them with averages for England (details are at Appendix B). Rates below the national average would suggest a relatively undersupplied market, where household formation is suppressed by inadequate supply. However, we must be cautious in interpreting HRRs as a measure of housing market balance, because they depend on many factors unrelated to that market.

5.32 Insofar as HRRs do tell us something useful about the housing market, the most relevant age groups are young adults in their 20s and 30s. These are the groups where geographical variations in HRRs are most likely to be explained by the availability and cost of housing. For younger age groups HRRs are too low for meaningful analysis, and for older age groups HRRS are close to saturation, and more driven by factors unrelated to the housing market. (Thus, for older people HRRs depend on relative life expectancies, because as the gap between men and women shrinks there are fewer widows and more couples, so HRRs decrease.) Young adults in their 20s and 30s, and specifically those living in couples, are also those who are losing out in the housing market - with HRRS that have been falling since at least the early 1990s are projected to fall further in the future[20].

5.33 To return to housing HRRs in the IHMA, for people aged 25+ nearly all HRRs in the HMA authorities are either close to or above national averages. In relation to younger people, the position is more variable. For singles aged 20-24, HRRs in Ipswich borough are at or above national averages, while in the other IHMA districts they are below the averages. But for couples aged 20-24 all four districts have HRRs virtually equal to the averages. ('Previously marrieds' in this age group are too few for meaningful analysis).

5.34 Overall, our analysis of HRRs provides no evidence that past household formation in the IHMA has been suppressed by a local undersupply of housing. Therefore, there is no justification for adjusting the HRRs in the CLG projection.

[20] Neil Macdonald and Christine Whitehead, *New Estimates of housing requirements in England, 2012 to 2037,* Town & Country Planning Tomorrow Series Paper 17, November 2015

Alternative projections

5.35 To predict migration, the ONS carry forward the trends from previous years. The choice of this base period can be critical to the projection, because for many areas migration has varied over time, and these variations can be carried forward into the future projections. In the study area authorities, there is even more reason to test alternative projections due to the uncertainties surrounding long-term migration patterns and UPC.

5.36 Alternative scenarios are mostly based on varying assumptions about migration and household formation. In contrast to natural change, these factors are both difficult to measure for the past and even more difficult to predict for the future. Given our conclusions above, we do not vary HRRs as part of this testing.

5.37 In addition to the official SNPP 2014-based projections, we have considered the following alternative projections, prepared on behalf of the client group by Cambridgeshire Research Group (CRG), which draw on longer or more recent data to inform them:

- 14-year trend excluding UPC (CRG14X) – base period 2001-15
- 14-year trend including UPC (CRG14) – base period 2001-15
- 5-year trend excluding UPC (CRG5X) – base period 2010-15
- 5-year trend including UPC (CRG5) – base period 2010-15

5.38 In addition, a 10-year trend was also modelled, but it became apparent that the influence of low levels of net migration in the years immediately following the recession were distorting the projections.

5.39 All the alternative projections draw on the latest 2015 MYE; these represent a further year of data than those used in the official projections. These alternative projections vary in two key elements: the migration base period and the inclusion or exclusion of UPC. Fuller details of these projections are provided at Appendix D . The table below summarises the dwellings per annum for each projection. For reference, the first column shows the official projections.

Table 5.3 IHMA alternative projections: dwellings per annum

LPA	ONS/CLG 2014	CRG14X	CRG14	CRG5X	CRG5
Ipswich	410	530	648	435	472
Babergh	289	317	329	304	309
Mid Suffolk	417	475	472	410	411
Suffolk Coastal	403	636	598	409	400
IHMA total	1,519	1,958	2,047	1,558	1,592

Source: ONS/CRG 2015 (Appendix D)

5.40 The table above shows that an alternative base period and the inclusion/exclusion of UPC does make a difference to the future projection of the number of dwellings.

When alternative projections are used, there is often a difference at a local authority level, but this is balanced out at the HMA-level. It is clear from the figures above that this is not the case. We explore this in more detail below.

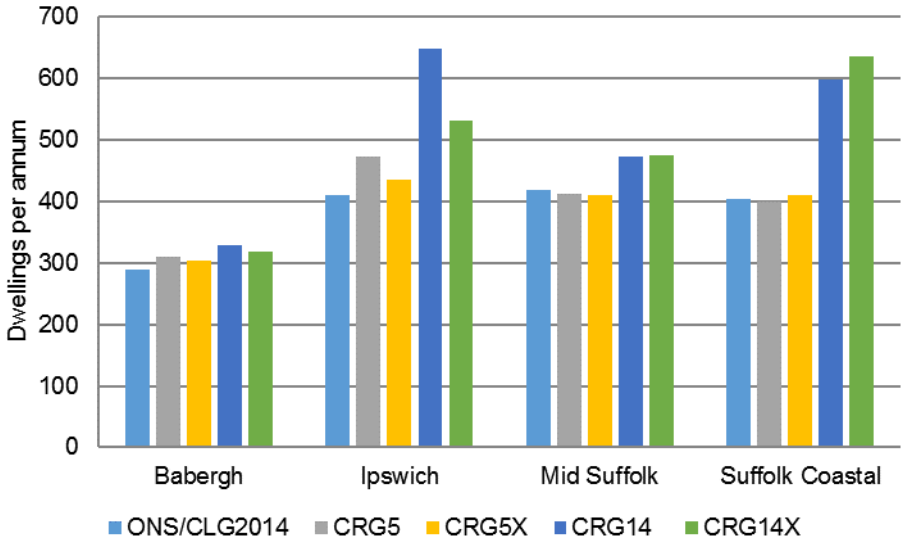
UPC

5.41 As explained earlier, UPC is excluded from the past trends that the official projections roll forward. Because we do not know what caused the UPC in the IHMA, excluding it from the future projections could either underestimate or overestimate trend-driven demographic change.

5.42 CRG14X and CRG5X both exclude UPC from their projections, and overall they project less need for housing when compared to their equivalent projections including UPC.

5.43 The figure below shows the official projections and CRG trend projections for each authority, showing clearly the impact of including/excluding the UPC. As UPC was identified at the 2011 Census, it is only part of the data up to 2011. Therefore, for the projections which include the UPC, the five-year trend only includes one year of UPC (2010-11), whereas the 14-year includes the full 10 years (2001-11).

Figure 5.1 IHMA five-year trend household projection comparisons



Source ONS/CRG 2015

5.44 Babergh is the only authority for which all the alternative projections are close together, probably because of its low UPC and more limited variations in migration. Mid Suffolk also had a reasonably low UPC, and the graph shows that its five-year-based projections are in line with the ONS, but its 14-year projections are slightly higher.

5.45 Ipswich is the authority that had the largest UPC, and that shows the greatest variation between the different projection scenarios. This shows the direct impact UPC can have on future projections. This is not something that should be ignored, as there is no way to tell whether the UPC represents true migration trends.

5.46 The impact of the UPC is insignificant for all authorities except Ipswich. Even for Ipswich it makes only a modest difference. Whether the UPC should be included in the projections is a matter of judgment, and we have no evidence to support that judgment, because the reasons for the UPC are unknown. Our judgment is that the UPC should probably be included. Our reason is that planning should positively encourage development, and in this case including the UPC results in a higher housing number; yet the number is not so high that there is a risk of significantly oversupplying the true need, which could cause unnecessary environmental harm.

London

5.47 A number of local authorities have chosen to adopt a demographic projection based on 10 years, or even longer periods, in order to reduce volatility and capture underlying long-term trends. This approach has been championed by the Greater London Authority (GLA), who have repeatedly made the case that LPAs in and around London, or with London links, should adopt a longer-term trend when estimating their demographic need. In the London case this is because migration flows between London and elsewhere pre, post, and during the recession were very different.

5.48 The short-term base period used by the ONS therefore has the potential to not accurately reflect likely migration, and so too the need for new homes, over a long plan period, for authorities where future migration flows to and from London are anticipated to reflect longer term trends.

5.49 While London has links with the Suffolk authorities and has an influence on migration, it is not the only driver of migration flows so the GLA advice is less directly relevant. Appendix E discusses the GLA's projections and their implications for the study area.

Preferred projection

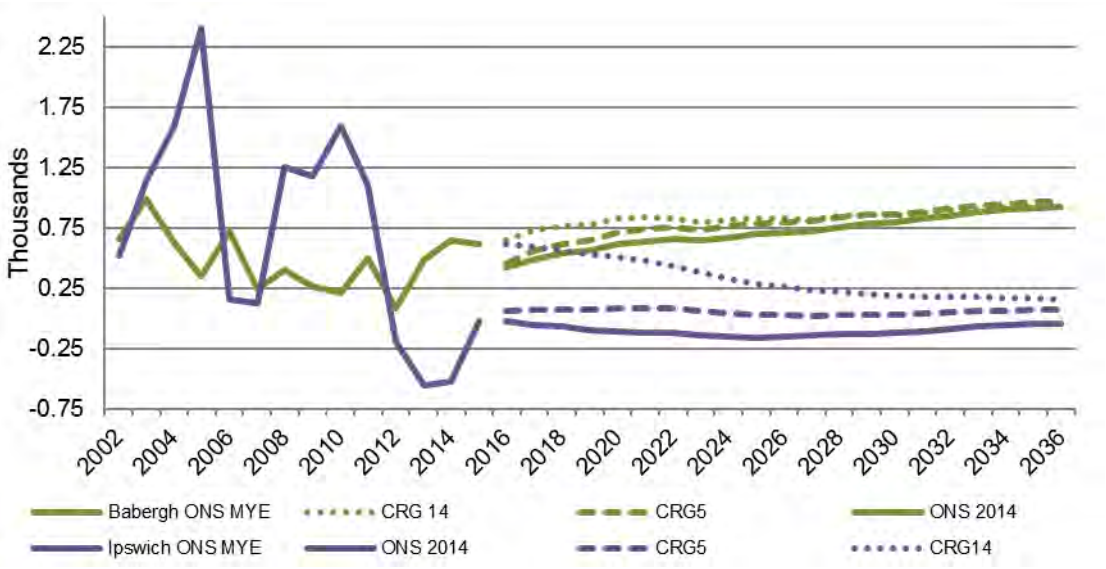
5.50 We have tested the official projections. It is clear from the discussion above that we believe UPC should be included in the base period for projections. However, UPC cannot explain all the differences between the alternative projections.

5.51 In order to explain this, the components of change (natural change and migration) have been examined to inform our recommendation. From the analysis of natural change, it is clear that it is similar in all projections to the official projections.

5.52 In looking at net migration, the differences between the projections are clear. As explained in Section 4, there was a peak in migration in the HMA in approximately 2004-05. This was caused by high levels of overseas migration following the EU accession. The 14-year base period covers this period of unusually high migration, and projects it forward. The five-year trend starts in 2010, and therefore is not affected by this migration pattern.

5.53 The chart below shows actual net migration (ONS MYE), the official projections (ONS 2014), and the CRG14 and CRG5 projections. This is only displayed for Ipswich and Babergh as an example.

Figure 5.2 Ipswich and Babergh past and future net migration



Source: ONS MYE and CRG

5.54 It is clear that the CRG5 is much more closely aligned to the official projections than the CRG14. It is expected that there will be a difference between the official and the alternative projections; however, we would expect the overall shape of the trend to be similar because they share four years of data (2010-14). The CRG14 projections start at a much higher value than the MYEs end for Ipswich, suggesting that the migration patterns from 2004-05 have had an adverse impact on the legitimacy of the future projections.

5.55 Longer-term projections (14-year) are often used as they help to smooth out any peaks and troughs in the year-to-year migration data while still picking up long-term trends. In this instance, the 14-year base period is not considered a representative basis for forecasting future growth. This is because of the effects of the EU accession in increasing both international and then latterly domestic migration in the study area.

5.56 It is our view that the EU accession in 2004 was felt more acutely in the client authorities than other parts of the UK. The population that migrated to the client authorities eventually started having children, eventually resulting in increased birth rates. This was a one-off event which is unlikely to be repeated in the future, and to project this forward would result in an overstated level of housing need.

5.57 The CRG5 does not pick up this unique migration trend. Therefore, it is likely to be more closely aligned to a future official projection, so represents the preferred projection. In coming to this view, we have considered the relationship between Suffolk and London, which forms part of the domestic migrations flows.

5.58 As established earlier, UPC is population that the 2011 Census 'discovered' because the MYEs did not know how these people came to live in the area. UPC will either be negative or positive, depending on whether the Census found more or fewer people than expected. Typically, at a national level, positive UPC in local authorities is broadly cancelled out by negative UPC in others.

5.59 It is also often found that the UPC balances out at the HMA level. This has not happened within the IHMA because, with the exception of Suffolk Coastal (2001-10), UPC is positive. The UPCs are unique to each authority, and for some represent a significant quantum of the population.

5.60 Therefore, UPC is included in the future projections. To not include it would involve assuming UPC will not happen again in the future, but there is no evidence to suggest it will not. Furthermore, because UPC is a positive adjustment for the HMA, including it in the projections is in keeping with the NPPF's direction to plan positively for growth. In any event, because it is most appropriate to use a five-year migration trend, only one year of UPC is rolled into the projections so its impact is modest.

Summary

5.61 As directed by the PPG, we have tested the official projections against a number of alternatives. In this instance, we have concluded that the CRG5 projections should be used as the demographic starting point which will form the first stage of calculating the OAN for the following reasons.

5.62 UPC is significant within the HMA, as it contributes more people to the total population than overseas migration in some authorities. However, despite using the ONS data tool to test the probability of the causes of UPC, we cannot satisfactorily explain it. Because UPC is positive and in the spirit of positive planning, we consider it more robust to include it. For this reason, we think there is a valid reason to depart from the official projections and also setting aside any alternative projections which do not include UPC.

5.63 The EU accession in 2004 has resulted in levels of migration in the IHMA which are unlikely to be replicated in the future. In particular, Ipswich borough is the most impacted by this unique period of migration; as it experienced a sudden peak in net migration, followed by increased birth rates, during the early stages of the long-term alternative projections we examined.

5.64 The longer-term trend projections would carry forward this unique migration pattern, and they are therefore not considered to be a representative base period upon which to base any calculations of housing need. The longer-term projections are therefore set aside.

5.65 The table below sets out the recommended demographic starting point for the client authorities based on the CRG5 projections. Other than Mid Suffolk and Suffolk Coastal, where the recommended projections are marginally lower than the official projections (411 dpa vs 417 dpa and 400 dpa vs 403 dpa respectively), the recommended projections are higher and use the most up-to-date data available.

Table 5.4 IHMA Demographic starting point

	Ipswich	Babergh	Mid Suffolk	Suffolk Coastal	IHMA total
Total dwelling change	10,382	6,799	9,046	8,792	35,019
Per annum dwelling change	472	309	411	400	1,592

Source: CRG5 (Appendix D)

6 IPSWICH HMA MARKET SIGNALS AND PAST PROVISION

Introduction

6.1 The starting point of our 'market signals' analysis is provided by paragraphs 2a 015 and 019 of the PPG:

> *'The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply.'*[21]

> *'The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand …'*[22]

6.2 Considered together, the above passages explain why market signals are relevant and how they should be used in relation to housing needs assessments. In summary:

- Demographic projections roll forward past reality – the amount of housing that has been provided in the reference period on which they are based.
- If this past supply met demand (need) in full then, other things being equal, the projection should be an accurate reflection of future demand.
- But if past supply under delivered against demand, then the projections will carry forward that under delivery; therefore, they understate demand and should be adjusted upwards.
- To determine whether past supply has indeed under-delivered against demand, the PPG suggests two kinds of evidence: a series of specified 'market signals' such as prices or rents, and 'other indicators' which are not specified.

6.3 The PPG advises that housing needs assessments compare market signal indicators to areas that are similar. Paragraph 020 of the PPG states that:

> *'Appropriate comparisons of indicators should be made. This includes comparison with longer term trends (both in absolute levels and rates of change) in the: housing market area; similar demographic and economic areas; and*

[21] Reference ID: 2a-015-20150227
[22] Reference ID: 2a-019-20150227

nationally. A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections."[23]

6.4 The ONS publishes area classifications for local authorities based on socio-economic and demographic data from the 2011 Census. It aims to identify local authorities which are characteristically similar. Table 6.1 sets out the comparative areas for each of the IHMA authorities. These have been used in the analysis of house prices and affordability indicators, as set out in Appendix F, and referred to in the analysis that follows.

Table 6.1 IHMA local authorities and their comparator areas

Most similar LPA	Ipswich	Babergh	Mid Suffolk	Suffolk Coastal
1	Gloucester	Mid Suffolk	South Norfolk	New Forest
2	Northampton	South Norfolk	Babergh	North Somerset
3	Salford	Forest of Dean	Forest of Dean	Mid Suffolk

Source: ONS Area Classifications for Local Authorities

6.5 Set out below is the analysis of past provision and market signals. We first look for direct evidence that housing land supply fell short of demand in the past periods whose trends the projections roll forward. We then analyse market signals, or market indicators, which could provide indirect evidence of such undersupply. This analysis covers the market signals identified in the PPG, except for land prices, on which the necessary data are not available. These indicators comprise:

- House prices
- Affordability, which is the ratio of house prices to earnings
- Rents
- Overcrowding and concealed households.

6.6 In relation to each signal, we compare absolute levels and recent change with national averages and with surrounding and similar areas. A high level of the indicator, or a high rate of growth relative to these comparator areas, would suggest that housing was undersupplied, and therefore a market signals uplift could be justified.

Past housing delivery

Overview

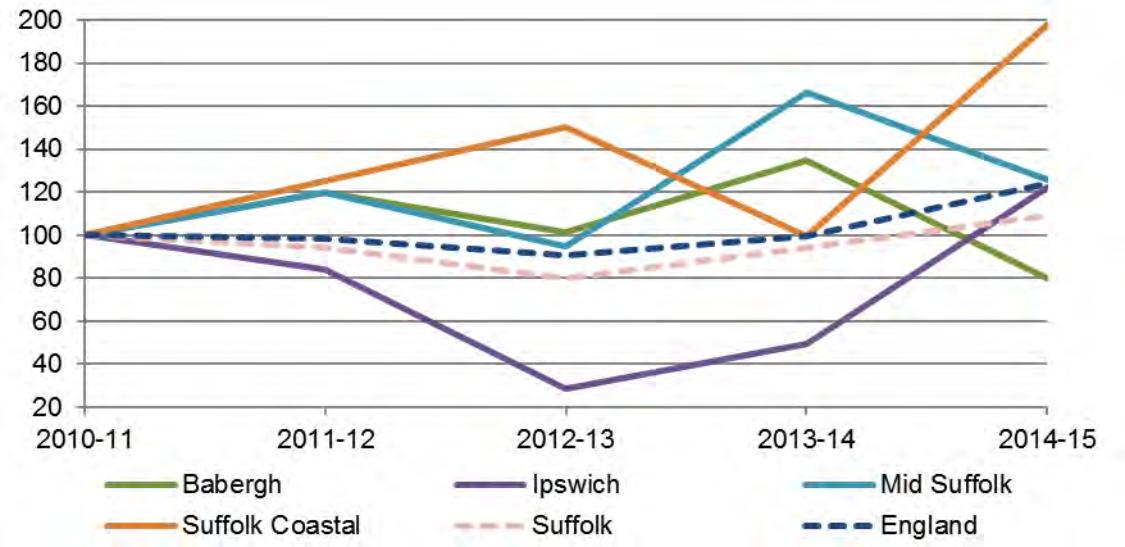
6.7 In the sections that follow we will analyse housing completions in each IHMA authority over the 2010-2015 base period of our demographic projections. The analysis searches for evidence that housing land in that period was undersupplied against demand, and therefore the projections underestimate demand and should be

[23] Reference ID: 2a-020-20150227

adjusted upwards. For this, we compare local trends in completions with national totals. If the local area follows a similar path to the national total, this suggests that variations in completions over the period were due to the economic cycle, which is a macroeconomic issue beyond the control of the local authority. Conversely, if completions do not follow the national pattern this may reflect local supply constraints, which may have suppressed development below the level of demand.

6.8 Figure 6.1 shows this comparison against the national total, for each of the authorities in the IHMA. Housing completions in England decreased in the two first years of the period, in the wake of the recession, bottoming out in 2012-13 and rising thereafter. Suffolk county followed the same pattern. In the following sections we will return to this chart, to compare each individual authorities with these benchmarks.

Figure 6.1 Indexed IHMA housing completions 2010-15 (2010-11=100)



Source: LPAs AMRs and CLG (2015)

6.9 For each authority we also consider whether it had a five-year housing land supply during the base period of the projection. The lack of a five-year housing land supply would suggest that planning was not providing enough land to meet demand, so a market signals uplift may be justified.

6.10 For context, in the charts below we also compare past housing completions with the policy targets applicable at the time. But completions below target do not necessarily prove that the market was undersupplied; it may be that past targets were set above demand, if policy aimed to direct growth to certain geographical areas.

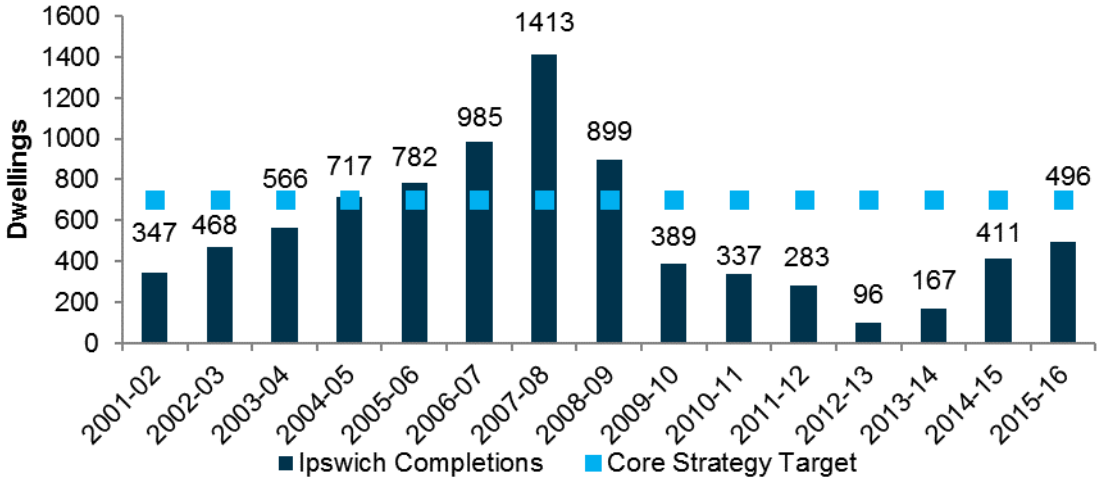
Ipswich

6.11 Housing completions in Ipswich broadly followed the trend in England growing to a peak in 2007/8, followed by decline until 2012/13 and a recovery thereafter. The 2007/08 peak included large-scale flatted development at the Ipswich Waterfront and development at Ravenswood.

6.12 In our base period, 2012-15, changes follow the same pattern as England as a whole, albeit both the decline and the recovery were sharper in Ipswich borough. Throughout

the period housing delivery failed to meet targets. These numbers taken in isolation do not provide any evidence of a local supply constraint. On the other hand, Ipswich did lack a five-year land supply in the period analysed. Also our discussions with IBC officers suggests that there was a qualitative mismatch between the type of housing that the identified supply was capable of delivering (primarily high-density flats) versus what the market might want (houses). This evidence suggests that planning may have undersupplied housing land over the period, so an uplift to the demographic projections may be justified.

Figure 6.2 Ipswich net housing completions

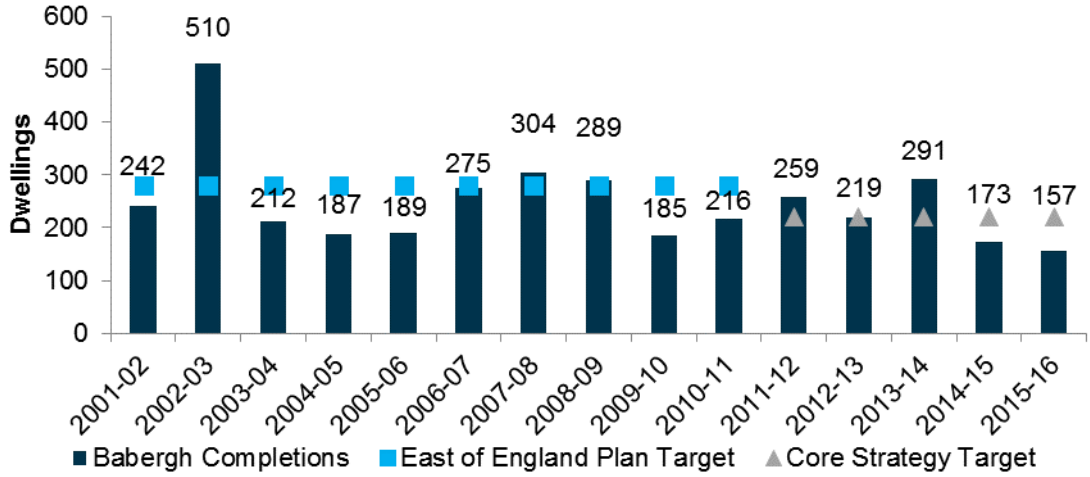


Source: IBC

Babergh

6.13 Figure 6.3 charts housing delivery in Babergh between 2001 and 2016, against the EoEP target of 280 dpa and subsequently the Core Strategy target of 220 dpa for the period 2011/12 – 2015/16.

Figure 6.3 Babergh net housing completions



Source: BDC

6.14 Over our base period, 2010-15, Babergh's housing completions (shown in Figure 6.1), broadly followed the same cyclical pattern as England as a whole – except for a

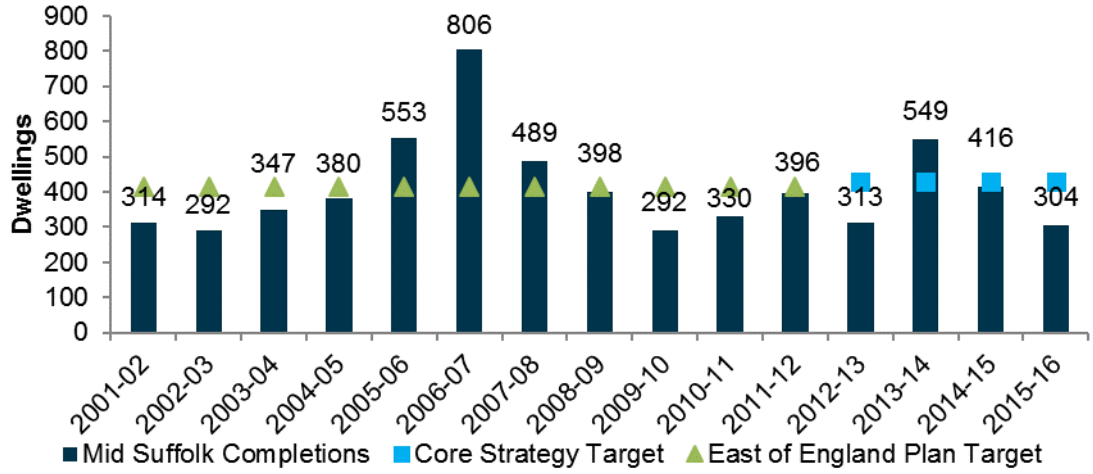
single year, 2014-15, which saw a sharp reduction, against the national trajectory. Delivery over the period met policy targets, and BDC could demonstrate a five-year land supply throughout the period. The facts do not suggest that housing land in Babergh was undersupplied.

Mid Suffolk

6.15 Figure 6.4 shows the housing completions in Mid Suffolk for the period 2001-2016, together with the Core Strategy target of 430 dpa and the previous EoEP target of 415 dpa.

6.16 In the period 2010-15, Figure 6.1 shows that numbers of completions followed the same cyclical pattern as England – except for a single year, when completions fell against the national trajectory, as they did in Babergh. Completions over the period averaged 401 dpa, very nearly meeting the targets of 415 and 430 dpa that applied during the period. The district was able to demonstrate a five-year land supply for the first four years of our base period, but not in 2014-15. This evidence suggests that there may have been a local supply constraint for just one year of our five-year base period. On this basis, an uplift to the demographic projections does not seem justified.

Figure 6.4 Mid Suffolk net housing completions



Source: MSDC

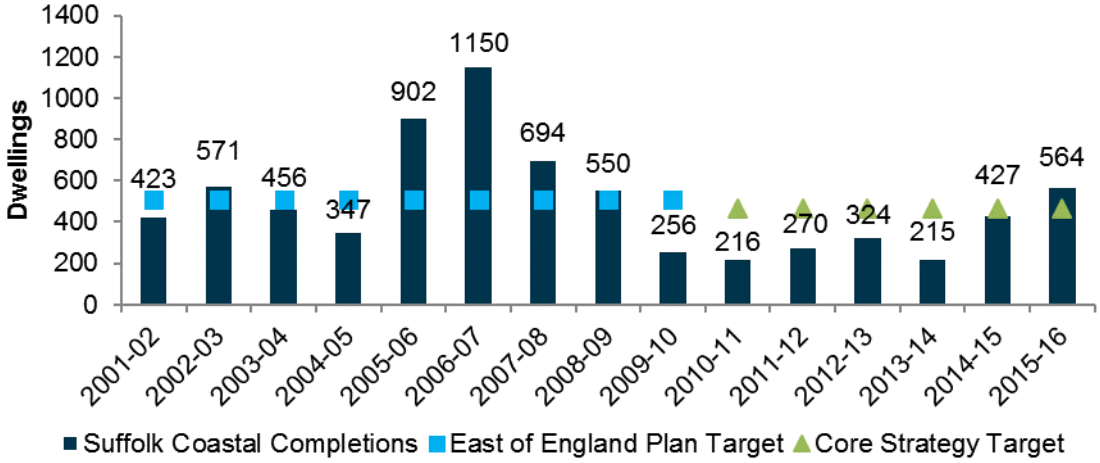
Suffolk Coastal

6.17 The figure below shows the housing completions in Suffolk Coastal during the period 2001-2016, and compares them to the EoEP target of 510 dpa and the Core Strategy target of 465 dpa. (Although 2006/7 appears to have experienced the highest level of housing completions, the data for this year was acquired by the SCDC after they developed a new monitoring method. As a result, the figure for 2006/7 is most likely comprised completions from previous years.)

6.18 Between 2010-15 housing completions in Suffolk Coastal were consistently below those in earlier years. The trajectory of completions is hard to interpret, as numbers rose for the first two years while the national total was falling (Figure 6.1). Figure 6.5 shows that delivery fell short of targets, albeit in the final year of the period the deficit was insignificant (Figure 6.5). With the exception of year 2014/15, SCDC could not

demonstrate a five-year housing land supply. Overall, this evidence suggests that an uplift to the demographic projections may be necessary.

Figure 6.5 Suffolk Coastal net housing completions



Source: SCDC

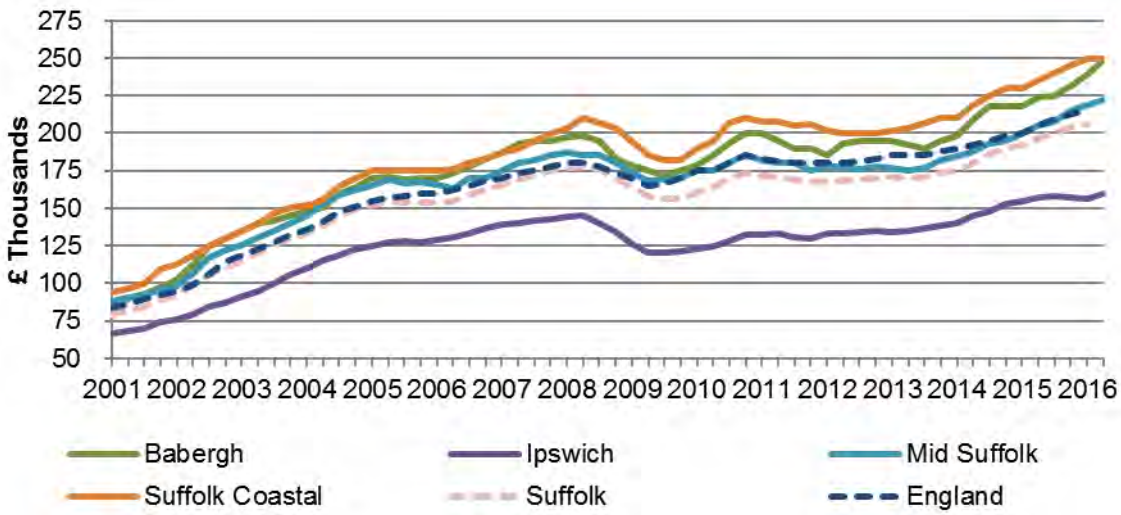
Market signals

House prices

6.19 ONS publishes quarterly median house price data based on Land Registry price paid data. The most recent data runs to the second quarter of 2016, and it has been used to assess the house prices of the client authorities, compared to national and regional figures.

6.20 Figure 6.6 shows the median house prices for the IHMA authorities, England, and Suffolk, from 2001 to 2016. During this period, Suffolk Coastal has always had the highest house prices, with a median price of £250,000 at the second quarter of 2016. The long-term trend shows that house prices in Babergh and Suffolk Coastal have always been above that of England.

Figure 6.6 IHMA median house prices 2001-2016

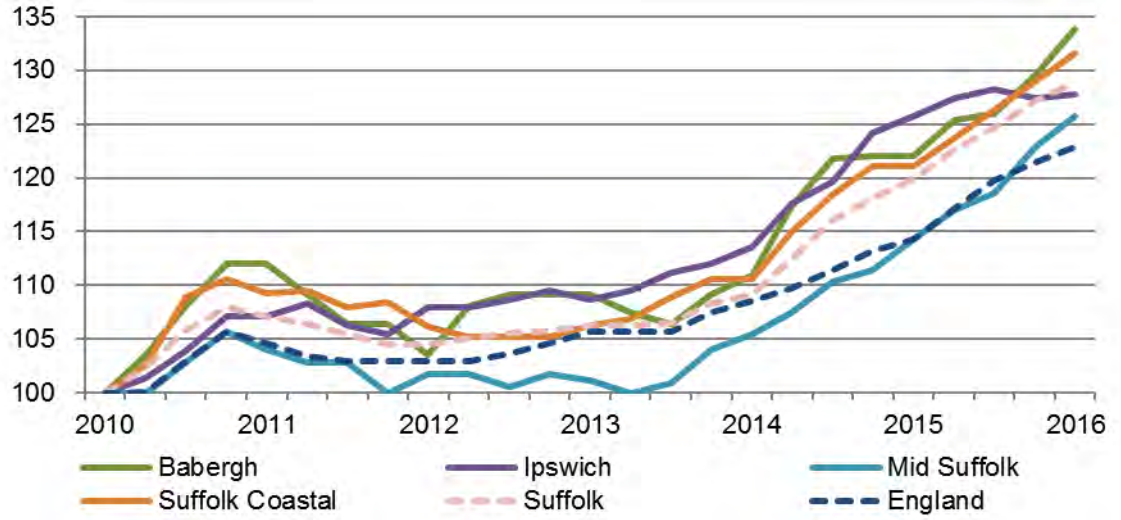


Source: ONS, HPSSA Dataset 9, Table 2a

6.21 House prices in Mid Suffolk have always been relatively close to the national median. The most recent data shows a median house price of £222,500 for Mid Suffolk, compared to the figure for England of £218,000. Ipswich has always had lower house prices than England; in the period 2010-15 it had the lowest median house prices of all the IHMA authorities, at approximately £130,000.

6.22 The figure below shows the indexed median house prices for each authority and compares this to England and Suffolk. Graphs showing the indexed house prices of each authority compared to their comparator areas can be found in Appendix A.

Figure 6.7 IHMA indexed median house prices 2010-2015



Source: ONS, HPSSA Dataset 9, Table 2a

6.23 Figure 6.7 shows that house prices in Ipswich, Babergh and Suffolk Coastal have increased at a faster rate than that of England. Suffolk Coastal and Ipswich follow a similar pattern to England; however, house price growth in Babergh differs from England between 2012-13, where price growth accelerated before dropping off.

Although house prices in Ipswich are the lowest in the HMA, its rate of increase over the period since 2010 has been one of the fastest.

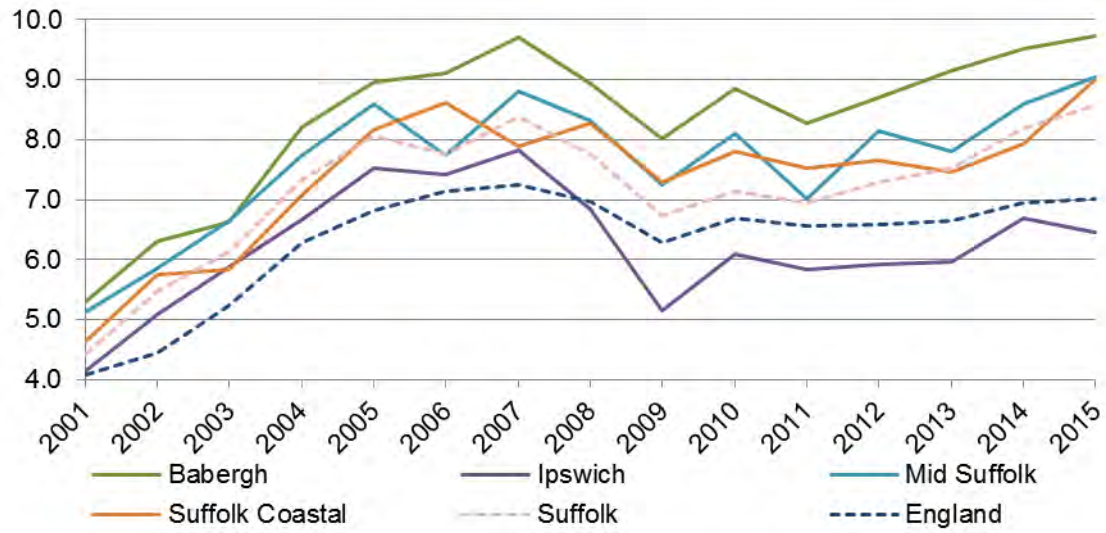
6.24 House price growth in Mid Suffolk has been significantly slower than England and the other authorities. Generally, it has followed a similar pattern to England, albeit with a significant slowing down between 2012 and 2013, before a rapid period of increase, allowing its rate of growth to almost catch up with that of England.

6.25 With house prices and rates of growth higher than England, both Babergh and Suffolk Coastal may require a market signals uplift. Despite having the lowest house prices of the IHMA authorities, the rapid rate of increase in Ipswich borough suggests that an uplift is also a consideration.

Affordability

6.26 CLG publishes annual affordability ratios, which have been calculated by comparing lower quartile house prices to lower quartile incomes. This ratio provides an indication of how affordable a local authority area is: a high ratio indicates low affordability, where the cheapest dwellings are less financially accessible to people on the lowest incomes. Graphs showing the affordability ratio of each LPA compared to its comparator areas can be found in Appendix F.

Figure 6.8 IHMA ratio of lower quartile house prices to lower quartile workplace earnings



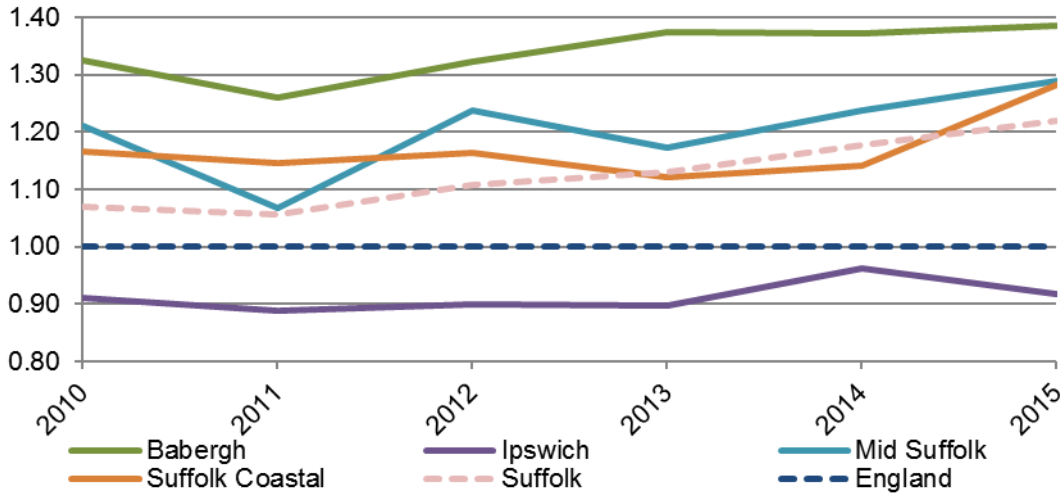
Source: CLG Table 576 and discontinued Table 576

6.27 The figure above shows that Babergh is the least affordable authority when compared to the other authorities and the national average. The most recent figures show that Babergh has an affordability ratio of almost 10, compared to the national ratio of 7.

6.28 Although Mid Suffolk and Suffolk Coastal are similarly unaffordable in 2015, over time the ratio has fluctuated greatly in Mid Suffolk; this is compared to a relatively stable affordability ratio in Suffolk Coastal.

6.29 Ipswich is the most affordable area, with a ratio of 6.4 in 2015. It is clear that Ipswich was impacted the most by the financial crisis, as its affordability ratio changed from its highest level, 7.8, to its lowest, 5.2, in the period 2007 to 2009.

Figure 6.9 IHMA ratio of lower quartile house prices to lower quartile workplace earnings, as a ratio of England



Source: CLG Table 576 and discontinued Table 576

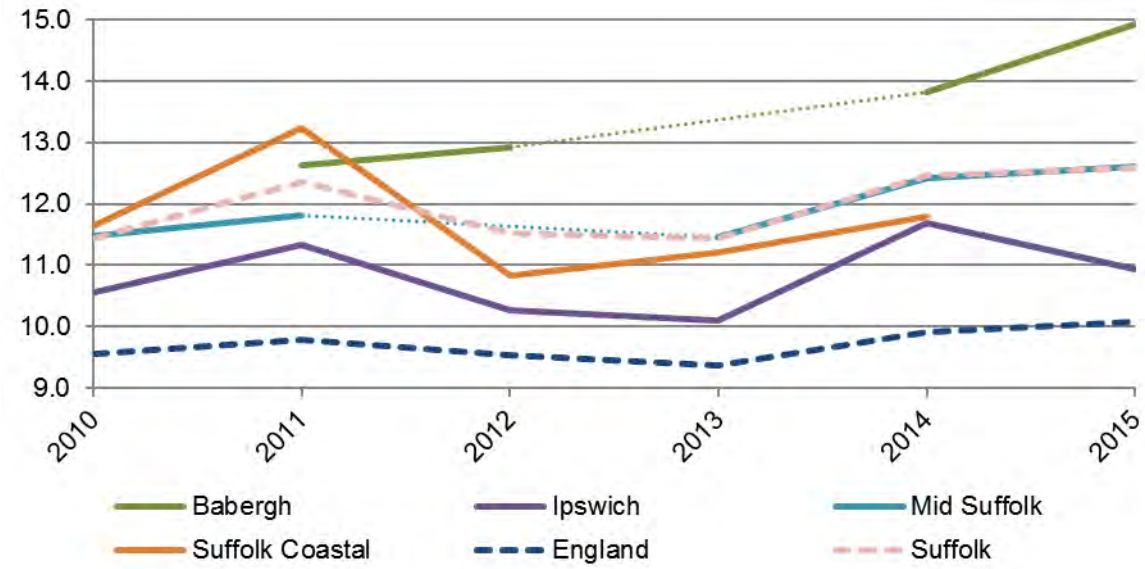
6.30 Figure 6.9 shows how the levels of affordability in each LPA has changed over the period 2010-15 compared to England. Affordability has worsened at a faster rate than England in Suffolk Coastal, Mid Suffolk, and Babergh. In Ipswich, affordability has changed on a par with England.

6.31 The above analysis is based on the PPG's advice that the ratio between lower quartile house prices and lower quartile earnings can be used to assess the relative affordability of housing.

6.32 However, as acknowledged by the CLG, this affordability ratio reflects the earning power of commuters rather than the earnings of residents living in a given authority. Therefore, using ONS data for house prices and resident earnings, we have calculated a ratio of lower quartile house prices to lower quartile earnings by place of residence.

6.33 By this measure, all the IHMA authorities are less affordable than England. In this instance, only Babergh's affordability has worsened in comparison to England. Mid Suffolk's relative affordability has remained stable, and the remaining authorities have improved. In Figure 6.10 the dotted line represents a lack of data, and therefore this information is less reliable than the other data points.

Figure 6.10 IHMA ratio of lower quartile house prices to lower quartile resident earnings



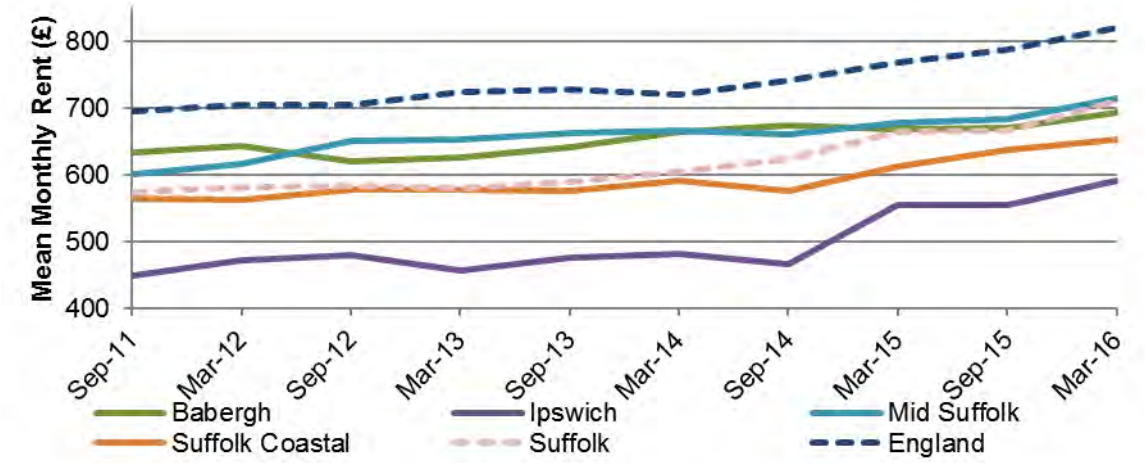
Source: ONS HPSSA Dataset 15, ASHE Table 8, and PBA (2016)

6.34 Based on their worsening affordability ratios, a market signals uplift is suggested for Babergh, and a more moderate uplift in Suffolk Coastal and Mid Suffolk.

Rents

6.35 Data on market rents is produced by the Valuation Office Agency (VOA); however, it is only available for a relatively short period between 2011 and 2016.

Figure 6.11 IHMA mean monthly rent



Source: VOA

6.36 The figure above shows that on average, all the HMA local authorities have lower monthly rents than the national average. The rent in Babergh has remained stable since 2011, with an increase of approximately 8%. Rents in Ipswich have experienced a significant increase of 32% over the period since 2011, with the

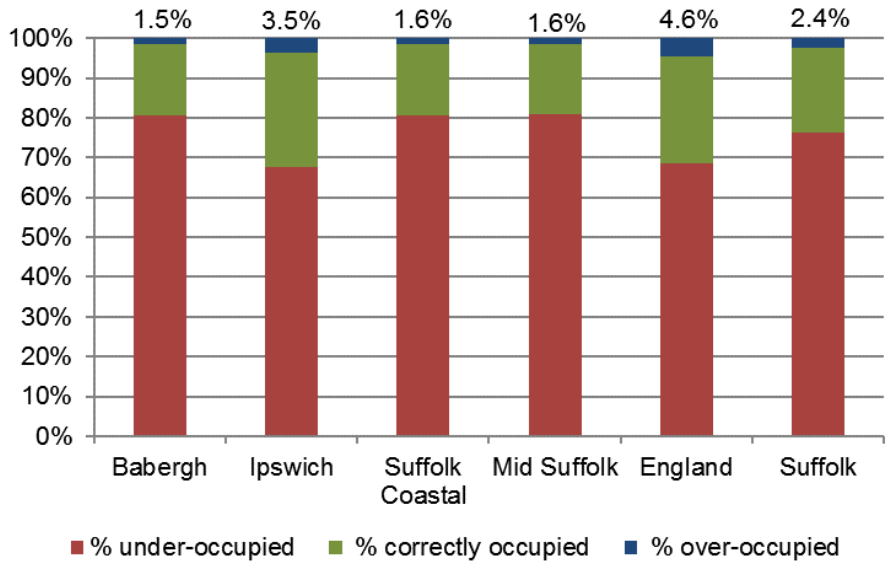
sharpest incline between September 2014-March 2015. All other authorities experienced a reasonable increase in rent (16-21%), in line with the national average.

6.37 Based on these rental figures, Ipswich is the only authority which may require a market signals uplift.

Overcrowding and concealed households

6.38 The figure below shows occupancy ratings, as defined by the ONS and calculated from 2011 Census data. Starting from the base of the columns, the chart shows the percentage of dwellings that are under-occupied, correctly occupied and over-occupied according to ONS definitions, which are based on the 'bedroom standard'.

Figure 6.12 IHMA overcrowding and under-occupation

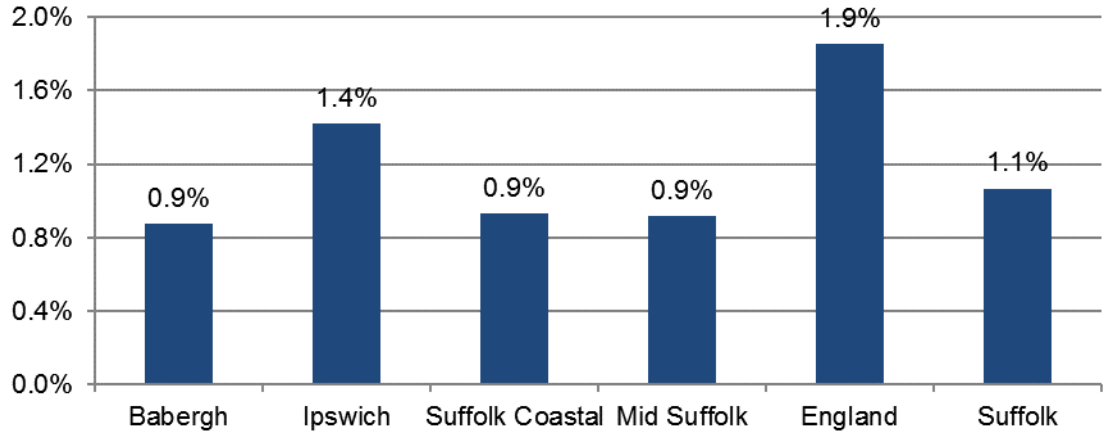


Source: Nomis, Table QS412EW – Occupancy rating (bedrooms)

6.39 For the IHMA, overcrowding was below the national average. 3.5% of dwellings in Ipswich were considered overcrowded, the highest figure of the client authorities. All other authorities had much less overcrowding.

6.40 A further indicator is the number of concealed families. A concealed family is one living in a multi-family household who is not the primary family in that household. The definition includes couples with or without dependent children and lone parents of dependent children, but it excludes single people. An abnormally large number of concealed households can also be a sign of market pressure.

Figure 6.13 IHMA concealed households



Source: Nomis, Table LC1110EW (October 2016)

6.41 All the IHMA authorities had a lower level of concealed households than the national average. Once again, Ipswich had more concealed households than the others, at 1.4%, while for the other IHMA authorities the proportion was around 1%.

6.42 Overall, the IHMA does not suffer from above average levels of overcrowding or concealed households. Although Ipswich has a higher proportion of both compared to the other authorities, there is no evidence here to justify an uplift to the demographic projections.

Scale of the uplift

Guidance and precedent

6.43 The PPG gives no specific advice on the scale of housing market uplift, merely saying that any such adjustment should be 'reasonable':

> *The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (e.g. the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be.'*[24]

6.44 Based on the PPG requirements, inspectors' decisions approached the matter as an exercise of judgement.

6.45 In Eastleigh, the inspector noted that affordability had worsened more than the national average and rents had risen more than the average. On this basis he concluded that '*a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA… Exploration of an uplift [to the demographic projections] of, say, 10% would be compatible with the 'modest' pressure of market signals*'.

[24] Reference ID: 2a-020-20140306

6.46 In Uttlesford, the inspector mentioned that house price increases had been slightly less than for Essex and England but from a very much higher base; median rents were higher than these comparators and had risen faster; and affordability had risen to a much higher peak prior to the recession. Taking these market signals as well as affordable need 'in the round', the inspector advised an uplift of 10%. He did not apportion the uplift between these two factors.

6.47 In Canterbury, the inspector focused on three main market signals:

- Median house prices 12% above the national average
- House price growth some 20 percentage points above the national average
- Affordability ratio consistently above the national benchmark - currently 9 against 6.5 for England

6.48 The Canterbury inspector recommended an uplift of 30% to take account of these market signals, together with future jobs, affordable housing need and a post-recession recovery in household HRRs. The inspector noted that these four factors overlapped and did not apportion the uplift between them.

6.49 From the three cases discussed above we cannot draw definite conclusions about the correct market signals uplift for each of the relevant LPAs. This is partly because the evidence used in Eastleigh, Uttlesford and Canterbury is not directly comparable: the indicators used are not always the same, some are measured as absolute levels and others as rates of change; they refer to different dates and are compared with different benchmarks. A further difficulty is that only one of the three Inspectors, in Eastleigh, provides an uplift for market signals alone. In the other two areas the adjustments they propose also take account of affordable need, future jobs and the impact of the recession on household formation.

6.50 In short, the size of any market uplift cannot be simply inferred from earlier examples; it also requires judgement.

Determining the uplift

6.51 Below, we summarise market signals across the IHMA in Table 6.2, and then discuss them for each authority in turn.

Table 6.2 IHMA market signals summary

Indicator		Ipswich	Babergh	Mid Suffolk	Suffolk Coastal	England
Median house prices (£)	2016	160,000	248,998	222,500	250,000	218,000
	England Comparison (LPA - England)	-58,000	30,998	4,500	32,000	
Median house price growth	2010-15	25.8%	22.0%	14.3%	21.1%	14.3%
	England Comparison (LPA - England)	11.4 pp	7.7 pp	-0.1 pp	6.7 pp	
Affordability (work place earnings)	2015	6.4	9.7	9.0	9.0	7.0
	England Comparison (LPA - England)	-0.6	2.7	2.0	2.0	
Affordability (resident's earnings)	2015 *(2014 for Suffolk Coastal*	10.9	14.9	12.6	11.8	10.1
	England Comparison (LPA - England)	0.9	4.8	2.5	1.7	
Private monthly rent cost (£)	2015	555	670	683	637	788
	England Comparison (LPA - England)	-233	-118	-105	-151	
Over-occupancy	2011	3.5%	1.5%	1.6%	1.6%	4.6%
	England Comparison (LPA - England)	-1.1 pp	-3.1 pp	-3.0 pp	-3.1 pp	
Concealed households	2011	1.4%	0.9%	0.9%	0.9%	1.9%
	England Comparison (LPA - England)	-0.4 pp	-1.0 pp	-0.9 pp	-0.9 pp	

Ipswich

6.52 Ipswich, in the base period of our projections (2010-15), could not demonstrate a five-year housing land supply, and it also suffered a qualitative undersupply, in that the development land available was largely suitable for flats, while demand was predominantly for housing. Although house prices are lower than England, they have increased faster than England and all the other HMA authorities. Rental growth has also been above the national benchmark. Despite this, Ipswich remains consistently more affordable than England as a whole.

6.53 These are mixed market signals, suggesting moderate market pressure, comparable to the precedent of Eastleigh. In our judgement, therefore, a market signals uplift of 10% is justified.

Babergh

6.54 Babergh met its housing targets between 2010-15 and it demonstrated a five-year housing land supply throughout the period. However, its house prices and house price growth were slightly higher than for England. Also Babergh has consistently had poor affordability, worse than England and worse than the rest of the HMA. In our judgement a market signals uplift of 15% is justified.

Mid Suffolk

6.55 For the first four years of our base period, Mid-Suffolk overall met its housing targets and could demonstrate a five-year land supply, though in the final year delivery fell below target and housing land supply fell below five years. House prices and house price growth were in line with England but affordability was consistently poor. In our

judgement these mixed market signals suggest moderate market pressure and justify a market signals adjustment of 10%.

Suffolk Coastal

6.56 Suffolk Coastal 2010-15 experienced a slowing down of completions and did not meet its delivery targets, which may be the result of a lack of a five-year housing land supply in 2010-14. House prices in the district were high and affordability poor. This suggests that housing over the period was relatively undersupplied. In our view a market signals uplift of 15% is justified

7 IPSWICH HMA JOBS AND HOMES

Introduction

7.1 This section examines whether housing provision in line with our preferred demographic projections would support enough workers to match the future job growth expected in the area. If that were not the case, in line with the PPG the projections should be adjusted upwards, unless the labour market can be brought into balance by other means, such as transport infrastructure.

7.2 The NPPF at paragraph 70 says that planning should integrate the location of housing, economic activity and community facilities and services. The PPG discusses the relationship between housing need and employment at paragraph 018[25]. It advises that plan-makers should make an assessment of future job growth and notes that, if future labour supply is less than this projected job growth, this could

> *'result in unsustainable commuting… or reduce the resilience of local businesses. In such circumstances, plan-makers will need to consider how the location of new housing and infrastructure development could help address these problems.'*

7.3 Planning Inspectors have interpreted this to mean that demographic projections should be tested against expected future jobs, to see if housing supply in line with the projections would be enough to support those future jobs. If that is not the case, the demographically projected need should be adjusted upwards accordingly; such adjustments overlap with the adjustments for past supply and market signals discussed in Section 6[26]. An alternative solution may be changes in commuting, whereby a labour deficit in one area is balanced by a labour surplus in neighbouring areas, provided that the planning authorities concerned are in agreement and the resulting travel is sustainable.

7.4 Inspectors' advice also suggests that future jobs cannot be used to cap demographic projections. In other words, if the demographic projections provide more workers than are required to fill the expected jobs, they should not be adjusted downwards. One reason for this, as explained by the Bath & North East Somerset Inspector amongst others, is that much of the demand for housing is not driven by job opportunities, and people who do not work also need somewhere to live.

7.5 To provide an integrated view of future jobs, population and housing, we have used the local economic forecasts produced by Experian and Cambridge Econometrics (the East of England Forecasting Model).

[25] Reference ID: 2a-018-20140306

[26] All adjustments referred here are policy-off. As confirmed by the High Court securing a 'policy on' regeneration led job target is outside the housing OAN (most clearly in Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government, ELM Park Holdings Ltd. EWHC 2464.)

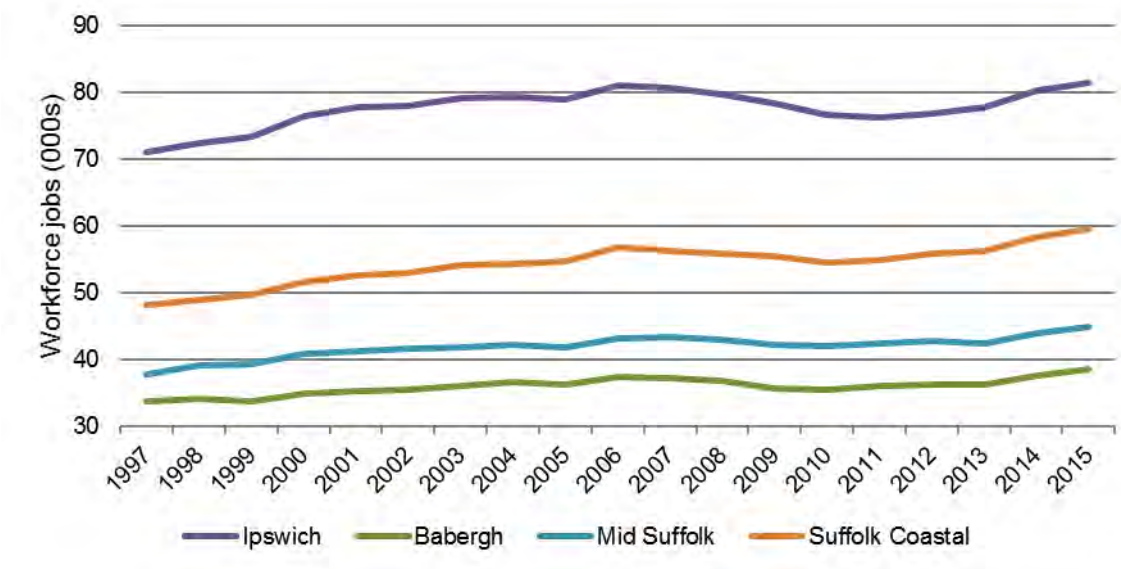
Past trends

7.6 Before considering how many new jobs are forecast we briefly consider past trends. This is because the PPG suggests we look at past trends and/or forecasts. So there is no requirement to plan for past trends (or forecast growth) but it is sensible to consider them.

7.7 Most historic economic data dates back to 1997 when the ONS introduced the Annual Business Inquiry. However, caution is needed when simply looking at the average 1997 onwards because this spans one or more economic cycles. This distorts the data.

7.8 The most robust way to consider past trends to look across an economic cycle. The Bank of England considered that the previous economic cycle lasted from 1992 until 2007 ('peak to peak'). So the current economic cycle commenced in 2007 and while the end of the cycle is still not clear the current day is a reasonable approximation; especially with the economic shock of Brexit.

Figure 7.1 IHMA workforce jobs 1997-2015



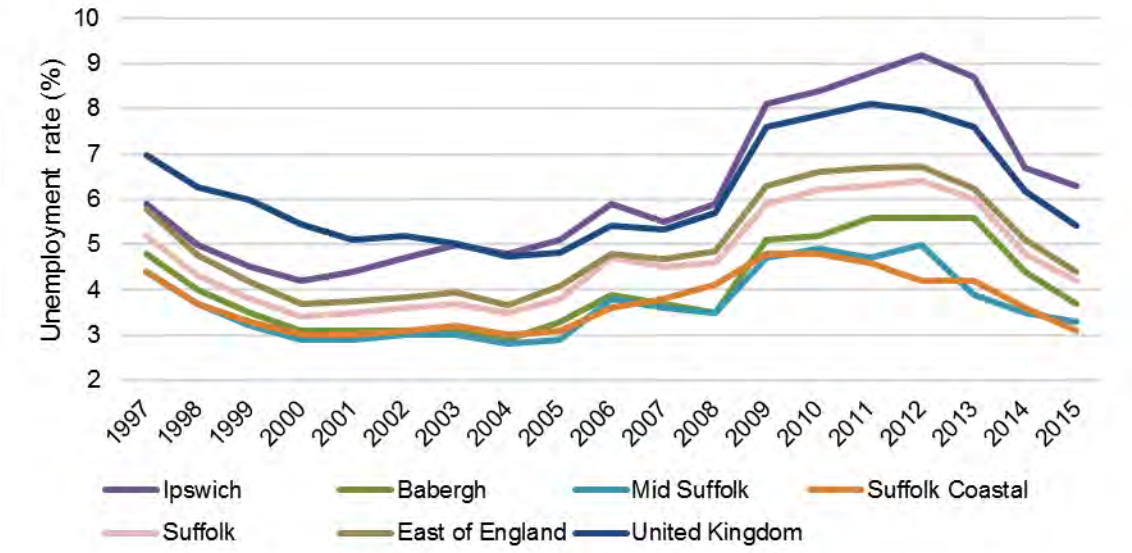
Source: Experian

7.9 Over the period since 1997, the figure above shows that workforce jobs have grown across the HMA area by 33,700. Ipswich has both the largest number of workforce jobs and experienced a relatively high level of job growth (10,400) across the period; only Suffolk Coastal exceeded Ipswich's job growth at 11,500 but growing from a lower base. The rate of job growth in the authorities has been broadly consistent across the period. All the HMA, apart from Ipswich, have passed their pre-recession peak in workforce jobs (2007).

7.10 Looking at how jobs are filled, we have briefly considered unemployment trends across the same period. The chart below shows the client authorities in the context of the county, region and national position. In broad terms, the client group have tracked the county, region and national rates over the period. Ipswich experienced

higher unemployment peaks than the national picture between 2011-14, but this has been falling so that Ipswich is now broadly in line with the national picture.

Figure 7.2 IHMA unemployment rate (%) 1997-2015



Source: Experian

East of England Forecasting Model

7.11 The East of England Forecasting Model (EEFM) has its roots in regional planning and is now managed by Cambridgeshire Insight, part of Cambridgeshire County Council on behalf of a large consortium of authorities in the East of England and beyond.

7.12 We use EEFM 2016, which was published in August 2016 but nevertheless takes no account of Brexit. Cambridge Econometrics are now producing the forecasts, having replaced Oxford Economics (OE), but the model itself is still as designed by OE.

How the model works

7.13 EEFM is a fully integrated model, which provides a consistent view of a range of economic and demographic variables. In the model population change, and the resulting housing demand, are driven by the demand for labour as well as demographic factors. For each local authority district the model proceeds as follows.

Labour demand

- Demand, measured by the number of workplace jobs[27], depends partly on the size of the local population – because people's consumption of local services creates jobs in retail, leisure and so forth – and partly on wider national / global demand. To turn workplace jobs into resident workers the model proceeds as follows:

[27] In this report job numbers cover all economic sectors, not just the 'B-class' sectors that occupy 'employment space' (industrial space, warehousing and offices).

- It applies a double-jobbing[28] factor to translate workplace jobs into workplace people employed.
- It subtracts net commuting from workplace people employed to arrive at the demand for resident workers.

Labour supply

- On the supply side, the future resident population is initially determined by natural change and trend-driven migration ('non-economic migrants') (the EEFM makes its own projections rather than using the official ONS ones).
- To translate the population into labour supply (economically active people, the labour force) the model applies economic activity rates.

Labour market balance

- It then compares the resulting supply with the labour demand estimated earlier, to produce unemployment in each area. Places with low unemployment attract above-trend net migration ('economic migrants') as people move to places where there are more job opportunities. Hence the resident population in these places rises above the initial trend-driven number, while conversely in places where unemployment is high population falls below the trend-driven number.

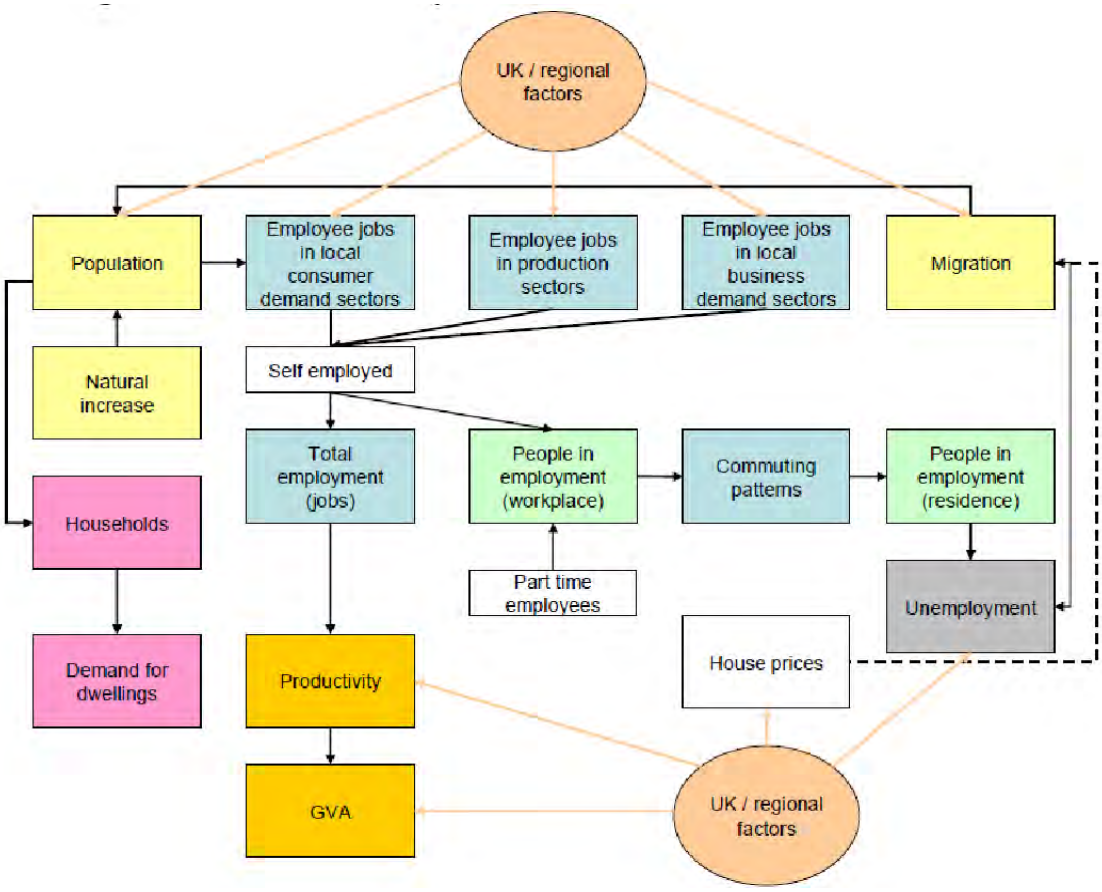
Housing demand

- Finally, the resulting population is translated into household demand, again using the forecasters' own method, using projections of persons per dwelling, rather than the CLG household forecast.

7.14 In short, EEFM uses 'economic migration' to balance the local relationship of jobs to population and housing. Its housing numbers are job-led: they show the numbers of dwellings that would be required to meet housing demand, including the demand resulting from changing job opportunities.

[28] Double-jobbing is the difference between jobs and people employed. It results from the fact that some people have more than one job. This is not uncommon, partly because many jobs are part-time.

Figure 7.3 Main relationships between variables in the EEFM model



Source: Oxford Economics, East of England Forecasting Model, Technical Report: model description and data sources, January 2015

How many jobs?

7.15 The table below shows forecast jobs growth of 36,700 additional jobs over the period 2014-36. It also shows the forecast population with the EEFM expects to fill those jobs.

Table 7.1 IHMA EEFM job growth 2014-36

	Workforce job growth	Population growth
Ipswich	19,040	34,021
Babergh	3,640	10,471
Mid Suffolk	6,450	21,649
Suffolk Coastal	7,940	23,843
IHMA total	37,070	89,984

Source: EEFM

7.16 Once the policy-off job prospects have been established, the key question for the SHMA is whether the number of homes suggested by the demographic evidence provides a sufficiently large workforce. Or whether additional new homes (and higher inward migration flows) are needed.

7.17 Because it is an intrinsic part of the model, we compared the EEFM view of population growth with the demographic starting point identified in Section 5. It is clear that overall, the EEFM's population is substantially higher across the client group than the demographic starting point. However, we first consider an alternative forecast before drawing any conclusions on the implications for the number of homes.

Experian forecast

7.18 As a cross-check on the EEFM results we have also considered the latest economic forecasts from Experian (December 2016). The Experian model works differently to EEFM:

- One of the differences is that in its standard, or baseline, version the Experian model assumes population change in line with the latest ONS SNPP (currently ONS 2014). The forecast *resident labour force (labour supply)* for the local authority area is calculated from that population, plus activity rates and commuting.
- Another output of the model is *job demand, (labour demand)* – the number of jobs in the local authority that employers will want to fill. As its name indicates job demand is a demand-side view, unconstrained by local labour supply. Job demand is not shown in the published forecast on Experian's website, but Experian has provided it for this study.

7.19 The forecast also outputs *workplace jobs* (called by Experian 'workforce jobs'), which means the number of jobs located in the area. This number is the lower of the forecast labour demand and forecast labour supply:

- If labour supply is enough to fill the forecast demand, the workforce jobs equals demand.
- If labour supply is too low to meet demand, the number of jobs is the maximum that *can be* filled by the forecast labour supply. In that case, the forecast is saying that job growth in the area will be *supply-constrained*. In other words, to meet demand in full would require net in-migration over and above the official population projection. In line with the PPG, where the projection understates housing need, it should be adjusted upwards.

Experian baseline

7.20 Experian's baseline forecasts (December 2016) are provided at Appendix G . The table overleaf provides an overview of forecast change in terms of the main variables that sit within the Experian model. This shows that over the period, the contribution of the over 65s in the workforce is expected to increase with economic activity rates increasing in the older age groups; in some areas, this is in contrast to the traditional working age groups declining, particularly in Suffolk Coastal.

7.21 To see whether the SNPP 2014 population meets the forecast demand for labour, we look at the 'Excess Jobs' in the table. This number, also known as 'unfilled jobs', is the difference between job demand (the jobs that employers will want to fill) and labour supply – the jobs that the projected population can fill. For three of the districts excess jobs are virtually zero, indicating that there will be enough or more than enough labour to meet demand. But in Ipswich there are some 1,000 'excess jobs', pointing to a small shortfall of supply against demand.

Table 7.2 IHMA Experian baseline forecast change 2014-36[29]

	Ipswich	Babergh	Mid Suffolk	Suffolk Coastal
Labour Force	7.40	4.19	4.54	3.99
Labour Force - 16 to 64	2.66	-1.67	0.99	-5.92
Labour Force - 65 Plus	4.74	5.86	3.55	9.90
Population – retired	6.62	8.35	9.78	11.46
Population - student	0.87	-0.56	0.03	-1.47
Population - 16 Plus	12.37	8.69	13.08	9.76
Population - 16 to 64	0.59	-4.36	-2.04	-8.44
Population - 65 Plus	11.77	13.04	15.11	18.20
Total Population	13.24	8.13	13.10	8.29
Working Age Population	5.75	0.33	3.29	-1.70
Economic Activity Rate (%) - 16+	-0.64 (66.10 to 65.46)	-1.24 (59.93 to 58.69)	-4.07 (64.12 to 60.05)	-1.78 (61.57 to 59.78)
Economic Activity Rate (%) - 16 to 64	2.50 (80.39 to 82.89)	3.76 (79.05 to 82.81)	4.73 (84.11 to 88.85)	1.79 (83.39 to 85.17)
Economic Activity Rate (%) - 65 Plus	11.37 (8.20 to 19.57)	11.37 (14.62 to 25.99)	4.75 (11.68 to 16.42)	14.63 (13.71 to 28.34)
Workforce Jobs	15.96	2.38	4.86	8.83
Jobs Demand	17.09	2.35	4.84	8.82
Excess Jobs	1.13	-0.03	-0.02	-0.01
FTE jobs	12.35	2.58	3.58	7.60
Workplace based employment	14.34	2.06	4.18	6.08
Residence based employment	8.61	4.63	3.25	3.96
Unemployment	-1.21	-0.44	1.28	0.02

Source: Experian (Appendix G)

7.22 We consider in further detail below the significance of the line identified as 'excess jobs' as a positive figure here indicates potential labour supply constraints and therefore may require an uplift.

[29] Unless explicitly stated, the figures in this table are in terms of thousands. Economic activity expressed as a percentage.

7.23 The table below summarises the implications for workforce job growth for each of the client authorities. For reference, the EEFM growth figures are also shown in this table.

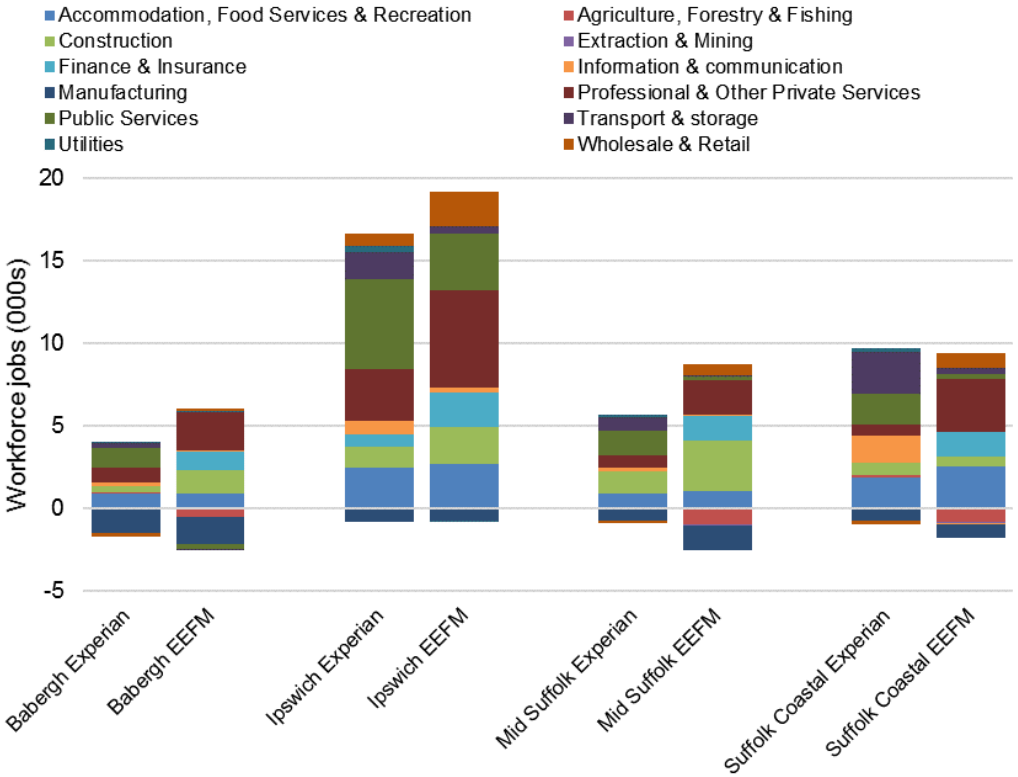
Table 7.3 IHMA Experian and EEFM workforce job growth 2014-36

	EEFM job growth	Experian job growth	Difference
Ipswich	19,040	15,957	3,083
Babergh	3,640	2,378	1,262
Mid Suffolk	6,450	4,856	1,594
Suffolk Coastal	7,940	8,826	-886
IHMA total	37,070	32,017	5,053

Source: EEFM, Experian

7.24 It is clear that while there is some difference in views about the distribution of growth across the HMA, total forecast job growth is broadly similar in both models. This is also true on a sector-by-sector basis, as shown in the chart below. In the context that forecast job growth is limited relative to the existing stock of jobs, it is similar sectors which are expected to grow by similar amounts in each area.

Figure 7.4 IHMA comparing job growth by sector between EEFM and Experian (2014-36)



Source: Experian & EEFM

Testing the EEFM view of job growth

7.25 While it is not the purpose of the SHMA to identify a preferred economic forecast we have undertaken further testing of the economic forecasts, largely because the two models we have used treat population differently. Thus while in Experian's model the population grows in line with the SNPP 2014, the EEFM derives population growth from the forecast labour demand.

7.26 Therefore, while the forecast level of job growth in the two forecasts is broadly similar, the population required to fill those jobs by the two models is not. The table below compares the population in the Experian forecast with the population implied by the EEFM. It also shows housing demand (numbers of dwellings). In the case of EEFM this is one of the forecast outputs. Under the Experian heading, as the Experian forecast does not count dwellings, we show the CLG 2014 housing numbers which are based on the same population, ONS 2014.

Table 7.4 IHMA comparing EEFM and Experian - forecast change between 2014 to 2036

	EEFM			ONS/CLG 2014		
	Population	Households	Dwellings	Population	Households	Dwellings
Ipswich	34,021	19,140	19,809	13,294	8,687	9,017
Babergh	10,471	6,203	6,450	8,086	6,104	6,348
Mid Suffolk	21,649	11,605	12,069	13,053	8,830	9,183
Suffolk Coastal	23,843	13,661	14,878	8,259	8,130	8,862
IHMA total	89,984	50,609	53,206	42,692	31,751	33,410

Source: EEFM, Experian

7.27 The two models' views on the way in which jobs will be filled are very different. Across the HMA the EEFM shows more than twice as much population growth as SNPP 2014. This is surprising, because according to Experian the SNPP population will be enough to fill a number of new jobs very similar to that predicted by EEFM.

7.28 We have as part of this SHMA and through discussion with Cambridge Econometrics sought to understand the way in which the EEFM works to explain why population growth is forecast to be much higher than the SNPP 2014. In the case of the IHMA authorities we think that the EEFM's population is overstated, primarily because the model does not 'know' enough about the age structure of the area, so is likely to understate economic activity in an ageing population; and also as a result of the way in which it derives its non-economic migration components.

7.29 Ideally we might 'take apart' the EEFM, so we can see and correct any issues relating to age structure. Unfortunately, this is not feasible without disproportionate effort. Nevertheless, we would like to test whether our preferred demographic scenarios would provide enough workers to meet the job demand forecast by EEFM. We have

asked Experian to provide this test, using their own forecasting model. The result is the 'Experian EEFM scenario', which compares the EEFM labour demand with the supply that the SNPP 2014 (i.e. a population lower than a demographic starting point) would produce.

7.30 The Experian EEFM scenario is provided in Appendix H, which also sets out an important caveat. Results are summarised in the table below. The 'Experian EEFM scenario' shows a very similar result to the Experian baseline: in three of the districts our preferred scenarios provide enough or more than enough labour to meet demand. The exception again is Ipswich, where by the end of the projection period there are some 1,000 unfilled jobs.

Table 7.5 IHMA Experian EEFM scenario forecast change 2014-36 (000s)

	Ipswich	Babergh	Mid Suffolk	Suffolk Coastal
Labour Force	6.55	4.63	5.11	3.45
Labour Force - 16 to 64	1.88	-1.31	1.09	-6.34
Labour Force - 65 Plus	4.67	5.94	4.01	9.79
Population - retired	6.62	8.35	9.78	11.46
Population - student	0.87	-0.56	0.03	-1.47
Population - 16 Plus	12.37	8.69	13.08	9.76
Population - 16 to 64	0.59	-4.36	-2.04	-8.44
Population - 65 Plus	11.77	13.04	15.11	18.20
Total Population	13.24	8.13	13.10	8.29
Working Age Population	5.75	0.33	4.08	-1.70
Economic Activity Rate (%) - 16+	-1.34 (66.10 to 64.76)	-0.70 (59.93 to 59.23)	-2.89 (64.12 to 61.24)	-2.26 (61.57 to 59.31)
Economic Activity Rate (%) - 16 to 64	1.61 (80.39 to 82.00)	4.53 (79.05 to 83.58)	4.92 (84.11 to 89.04)	1.11 (83.39 to 84.50)
Economic Activity Rate (%) - 65 Plus	11.16 (8.20 to 19.36)	11.61 (14.62 to 26.23)	5.98 (11.68 to 17.66)	14.41 (13.71 to 28.12)
Workforce Jobs	12.20	5.23	7.64	9.69
Jobs Demand	13.26	5.20	7.62	9.69
Excess Jobs	1.05	-0.03	-0.02	-0.01
FTE jobs	9.62	4.73	5.71	8.28
Workplace based employment	10.88	4.78	6.94	6.59
Residence based employment	7.80	5.06	3.97	3.45
Unemployment	-1.25	-0.43	1.13	0.00

Source: Experian/EEFM

7.31 We explore what these mean in the next section when we look at how many homes are needed to accommodate the forecast workforce.

How many homes?

7.32 Once the policy-off job prospects have been established (in this case, a range), the key question for the SHMA is whether the number of homes suggested by the demographic evidence provides a sufficiently large workforce, or whether additional new homes (and higher inward migration flows) are needed.

7.33 We answer this question working with Experian. The first question is whether the economic forecasts are constrained by a lack of labour in the area. Any economic forecast needs to be realistic and achievable. There are parts of the UK where there is a genuine shortage of labour in the local area and this means that the forecast does not represent the unconstrained economic potential of the area. Increasing the labour available would result in higher job growth because it releases this constraint.

7.34 Because of this risk we asked Experian to confirm what they consider to be the full, unconstrained, demand for labour in the area. That is the number of jobs that employers will want to fill, before any possible labour supply constraint has been applied to the forecast. This 'jobs demand' estimate looks at the economic structure of the district today and applies Experian's views of the sectors future growth potential.

7.35 In this case, Experian have confirmed that the unconstrained demand for labour is identical to that shown in their baseline model. There is no suggestion that a lack of labour is acting as any constraint on the number of jobs.

7.36 Because it is not the role of the SHMA to identify a preferred jobs forecast, we consider both the Experian baseline and the Experian EEFM scenario in looking at whether there are any labour supply constraints in the study area. In both scenarios, only Ipswich is forecast to be supply-constrained by the end of the plan period. This means that in all the other authorities, planning to accommodate population growth in line with the CLG 2014 projection will mean that there is sufficient labour to meet forecast job growth.

7.37 In the case of Ipswich, the baseline Experian model predicts that by the end of the plan period there would be in the order of 1,200 unfilled jobs in the borough if the population grew in line with the CLG 2014. In the case of the Experian EEFM scenario, there were forecast to be 1,100 unfilled jobs. We therefore asked Experian to balance the labour market for both scenarios i.e. to calculate how many additional people would be needed in addition to the CLG 2014 in order that Ipswich's economy would grow in line with the forecast. The detailed scenarios are provided at Appendix I.

7.38 This showed that 1,200 additional people were needed to balance the Experian baseline. For the Experian EEFM scenario, that figure was 1,700 additional people. Taking this higher figure as a worst case scenario in terms of the number of additional households, and therefore most robust for the purpose of this study, using the profile

of migration trends over a 10-year period, this equates to 807 additional households (838 dwellings) above those forecast by CLG 2014 (8,687 households, 9,017 dwellings) over the plan period i.e. a total of 9,855 additional homes between 2014-36.

7.39 In our conclusions to this study, we will consider this in the context of the demographic starting point (10,382 additional homes between 2014-36) and the recommendation that a 10% market signals uplift is required for Ipswich. This has regard to the fact that the projected growth in population will be higher than Experian has factored into their baseline and EEFM scenario models and also that there will be overlap between the market signals and jobs uplifts.

Alternative economic activity rates

7.40 The analysis above uses the local activity rates provided as part of Experian's economic forecast. In the Experian model, like other forecasting models, change in these local rates broadly parallels national activity rates – being driven by macro factors including the state of the national economy and the increase in State Pension age. But local rates also vary in response to the local balance of the labour market, through what economists call the discouraged worker effect. This means that when labour demand falls relative to supply some people leave the labour market or decide not to join it, because they see low chances of finding a satisfactory job; conversely, when demand rises against supply some people enter or re-enter the labour market.

7.41 The Experian job number quoted above is only valid providing all the other variables remain as per Experian. This includes the size of the resident population and the economic activity rate applied; should the size of the population increase the demand for jobs may change.

7.42 This also includes their national economic activity rates applied to the national population (of which the study area economy is a part). This is because, should alternative rates be preferred, for example those published by the Office of Budgetary Responsibility (OBR) or EU (which tend to be lower than Experian rates), then this reduces the number of jobs forecast for the UK as a whole, and therefore the future number of local jobs (labour demand).

Conclusions

7.43 In this section, we have tested the alignment of jobs and housing in the study area against two independent, policy-off economic forecasts. Our testing has shown that other than in Ipswich the labour market is not constrained. This has been confirmed by Experian in relation to both their view of jobs growth over the study period and also in the scenario they undertook which tested the EEFM's view of job growth. It should be stressed that this testing was not undertaken to support an alternative view of population or household growth as this would be logically inconsistent.

7.44 In relation to Ipswich, we commissioned further demographic and economic modelling to balance future jobs with future labour supply i.e. how many additional people were needed to 'unconstrain' the labour market in Ipswich. This indicated that between

1,200-1,700 additional people would be needed by the end of the plan period which equates to 838 additional homes on top of the CLG 2014 projection.

7.45 We consider in our recommendations how to treat this jobs uplift for Ipswich in the context of the demographic starting point and the market signals uplifts we have identified in Section 6.

8 IPSWICH HMA: SETTING THE OAN

Introduction

8.1 The method applied in this report follows that outlined in the Planning Advisory Service Technical Advice Note 'Objectively Assessed Housing Needs and Housing Targets'. This was first published in June 2014 and was updated in July 2015 to reflect emerging best practice.

8.2 It also follows the stages set out in the PPG to arrive at the 'overall housing needs figure' at paragraph 2a-020.

Demographic starting point

8.3 The most recent official projection (ONS/CLG 2014) shows needs arising of 33,410 dwellings in the Ipswich HMA between 2014 and 2036.

8.4 Following paragraph 2a-015 of the PPG, we have tested a wide range of demographic data prepared by CRG to identify the demographic starting point. This included producing alternative trend-based scenarios based on different periods.

8.5 Paragraph 2a-017 of the PPG states that:

> *'The household projections produced by the Department for Communities and Local Government are statistically robust and are based on nationally consistent assumptions. However, plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates'*

8.6 Through this sensitivity analysis we identified some issues in the longer-term trends associated with the one-off effects of the EU accession. We do not believe this will be carried forward in future years so set aside the longer-term alternative projections on the grounds that they will overstate need.

8.7 As part of this testing, we have considered the relationship between the study area and London, including having discussions with the GLA demographers. The current iteration of the London Plan is based on a longer-term migration trend scenario than the official projections. This is a departure from the nationally-consistent official projections which rely on a five-year migration trend (six years for overseas migration). While the longer-term trend may be appropriate for London's assessment of need, as we explain above and in detail in Section 5, we do not believe they are appropriate for the client group. On the basis of the current policy position adopted by London, we do not see the need for any specific London adjustment.

8.8 We also identified UPC as being significant across the IHMA but could not satisfactorily explain the cause of the error. For this reason, and based on the probable causes as identified in ONS' toolkit, we looked at scenarios which included UPC. We also looked to incorporate the latest MYE data published in June 2016.

8.9 Our analysis has also confirmed that household HRRs are not suppressed and so would not merit any adjustment.

8.10 Taking account of locally-specific circumstances and having sensitivity tested the official projections, the demographic starting point is 2010-15 five-year-based trend including UPC (CRG5). This shows a need for 35,019 new dwellings across the plan period, i.e. 1,609 more than the official projections.

Market signals

8.11 Following the PPG, we have looked to see whether there is evidence of market pressure in the IHMA which would require a market signals uplift. Our analysis shows that all the authorities require some degree of uplift for varying reasons. Specifically:

- Ipswich: the evidence shows that housing land supply (quantum and type) has been constrained and recent delivery has fallen short in spite of significant demand for homes indicating modest pressures. 10% uplift recommended.
- Babergh: house prices in the district have risen faster than the national average and the rate of increase has recently accelerated. It is also the least affordable of the client authorities, well in excess of the national average. 15% uplift recommended.
- Mid Suffolk: the district has become less affordable and it cannot demonstrate adequate housing land supply. 10% uplift recommended.
- Suffolk Coastal: affordability has worsened in relative and absolute terms, house prices are high and have increased at a faster rate than the national average and housing supply is constrained. 15% uplift recommended.

Jobs and homes

8.12 The PPG advises that:

> *'Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems.'*

8.13 To address this paragraph of the PPG, we used two independent and policy-off economic forecasts prepared by Experian and Cambridge Econometrics (EEFM). Both models forecast a similar level of jobs growth across the study period but rely on very different methods: while one is jobs-led, the other is population-led.

8.14 As part of our consideration of future jobs, we have looked critically at both models such that we commissioned Experian to model an alternative view of the EEFM job forecast to better understand how jobs might be filled. In both the baseline and EEFM Experian scenarios, taking account of increased economic activity rates,

changes to commuting flows and lower unemployment across the period, only Ipswich showed signs of labour supply constraints. Further economic and demographic modelling shows that a future jobs uplift of 838 additional homes would resolve this constraint.

Objectively assessed housing need

8.15 In line with national guidance, before they are used as a measure of objectively assessed housing need, the demographic projections may be adjusted in the light of two factors: firstly, future employment and secondly past provision and market signals. (In addition, we have considered an adjustment in response to the GLA projections as part of the demographic analysis, but concluded that this was not appropriate.)

8.16 It is important to understand that these different adjustments overlap. As discussed earlier in this report, the demographic projections carry forward past demographic trends. But, past growth may have been constrained by lack of housing, so that some people who otherwise would have lived in the HMA had to go or remain elsewhere. If that is the case, housing provision should be lifted above the projection, so that in future people in the same position are able to live in the area. If job numbers in the area also rise above past trends, these same people will theoretically be available to fill the additional jobs that are provided.

8.17 The table below sets out the summary assessment for client group in terms of the demographic starting point, market signals uplift across the authorities and future jobs uplift for Ipswich. It does not however simply total these elements because there is overlap between the market signals and future jobs uplifts. In this case, because Ipswich's job uplift is less than the market signals uplift, we have adopted the market signals uplift.

8.18 The last two columns of the table show the OAN. The total for 2014-36 is in the penultimate column and the annual average in the final column.

Table 8.1 Summary assessment for the Ipswich HMA (2014-36)

	Dwellings per annum	Total dwellings	Market signals uplift (%)	Market signal uplift (dwellings)	Future jobs uplift (dwellings)	OAN (dwellings)	OAN (dpa)
Ipswich	472	10,382	10%	1,038	*838*	11,420	519
Babergh	309	6,799	15%	1,020	-	7,820	355
Mid Suffolk	411	9,046	10%	905	-	9,951	452
Suffolk Coastal	400	8,792	15%	1,319	-	10,111	460
IHMA Total	1,592	35,019	0.5	4282	*838*	39,302	1,786

The OAN and affordable housing need

8.19 As noted earlier the purpose of this report is to calculate the objectively assessed housing need over the plan period, following the method set out at paragraphs 015-021 of the PPG. As well as the OAN, the PPG requires local planning authorities to calculate the need for affordable housing, using the method set out at paragraphs 022-028 of the PPG. The two methods are entirely different, and the results they produce relate to different meanings of the term 'need'. An obvious difference is that the OAN relates to the total number of homes in all tenures, while affordable need of course relates to affordable tenures only. But there are two further differences between the OAN and affordable need:

i The OAN measures realistic expectation of demand – the housing *that is likely to be delivered in practice* if planning provides enough land, based on historical experience plus various adjustments. In contrast, affordable need measures the number of households who would be eligible for affordable housing, if everyone is to enjoy suitable housing as defined by certain standards and taking into account the supply of new units.

ii The OAN measures the total number of additional homes to be provided over the plan period. In contrast, affordable need only assesses the additional homes to be provided in affordable tenures, without consideration of other tenures (or that market homes will become available for reuse as their occupants move to affordable housing). If affordable need were met in full, then much of the growth in affordable housing would be matched by reduced need for market housing, as many people would shift from unsuitable market housing to suitable affordable housing.

8.20 Because affordable need is a different kind of need to the OAN, affordable need is not part of the OAN and the OAN is not required to cover it in full, as confirmed by a string of inspectors' decisions and legal judgments. The way that plan-makers should take account of housing need is set out in paragraph 029 of the PPG:

> *'The total affordable housing need should be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.'*

8.21 The assessment of housing need for the study area, and advice on how it should be dealt with in accordance with paragraph 29 of the PPG, are provided in Volume 2 of this SHMA.

PART C: WAVENEY HMA

9 WAVENEY HMA PAST DEMOGRAPHIC CHANGE

Introduction

9.1 Before considering the future population of the Waveney HMA (WHMA) we must first look at the past. This is important because demographic projections are derived by rolling forward what has happened in the past into the future – 'projecting' past trends in the components of demographic change for different demographic groups. It is normal to find that different 'vintages' of population and household projections only differ in their results because they incorporate a different base period with a different base population or migration profile.

9.2 In this section we focus on demographic change up to 2015, using the most recent release of data from the ONS, the 2015 MYE (issued in June 2016).

What has changed since 2001?

9.3 The population projections comprise two main elements: natural change and migration. Natural change is self-explanatory, but migration can be into or out of the district, and it can be domestic (England and UK cross-border) and overseas (EU and outside EU). To provide background to the population projections, we consider both within analysis of past population growth below.

Table 9.1 WHMA change analysis 2001-15

LPA	2001-02 Population	Births	Deaths	Natural Change	UK Net Migration	Oversea Net Migration	Other	2014-15 Population
Waveney	112,497	16,617	19,770	-3,153	7,950	1,752	-2,864	116,182

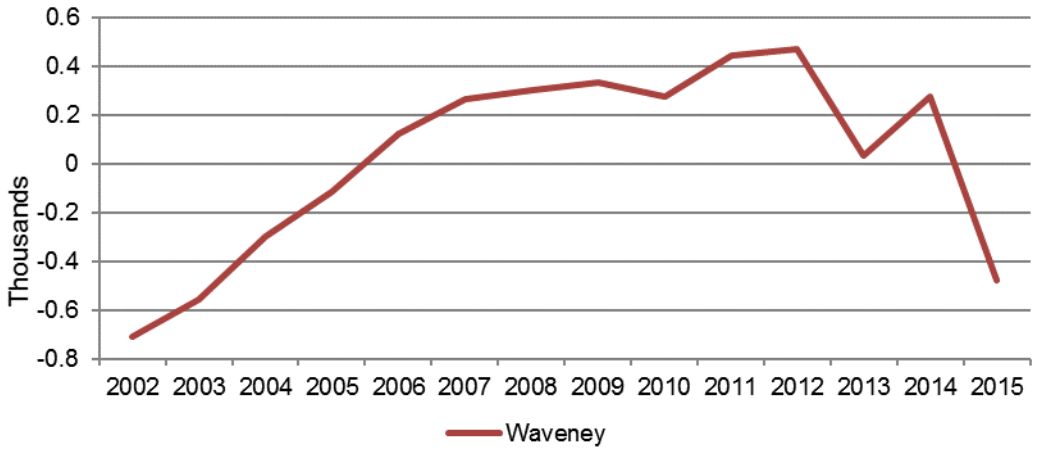
Source: ONS MYE

9.4 The table above shows the population change for Waveney, over the period 2001-15 according to the MYE. Throughout the study area there was a 3% increase in population, mostly attributed to UK net migration. Waveney experienced the least population change of the client authorities. This is due to the loss of 2,864 people by 'other' means, most of which is a result of UPC.

Natural change

9.5 The graph below shows the natural change for Waveney. The authority experiences a period of gradual increase until 2010, when it begins to slow and decrease. In total, Waveney lost 3,153 people through natural change between 2001-15.

Figure 9.1 WHMA natural change 2001-15

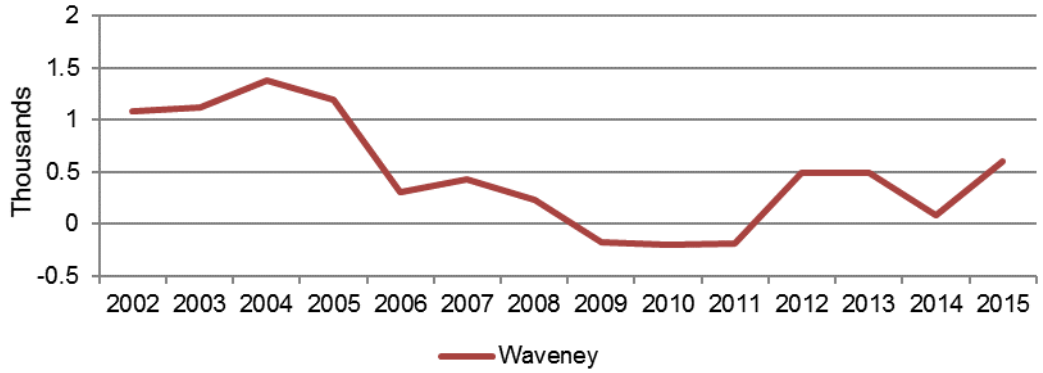


Source: ONS MYE (2015)

Migration

9.6 The chart below shows net migration over the period 2001-15 for Waveney. In 2004 there was a peak in the net migration of the HMA. There was then a period of gradual decline, before a sharp increase in 2012.

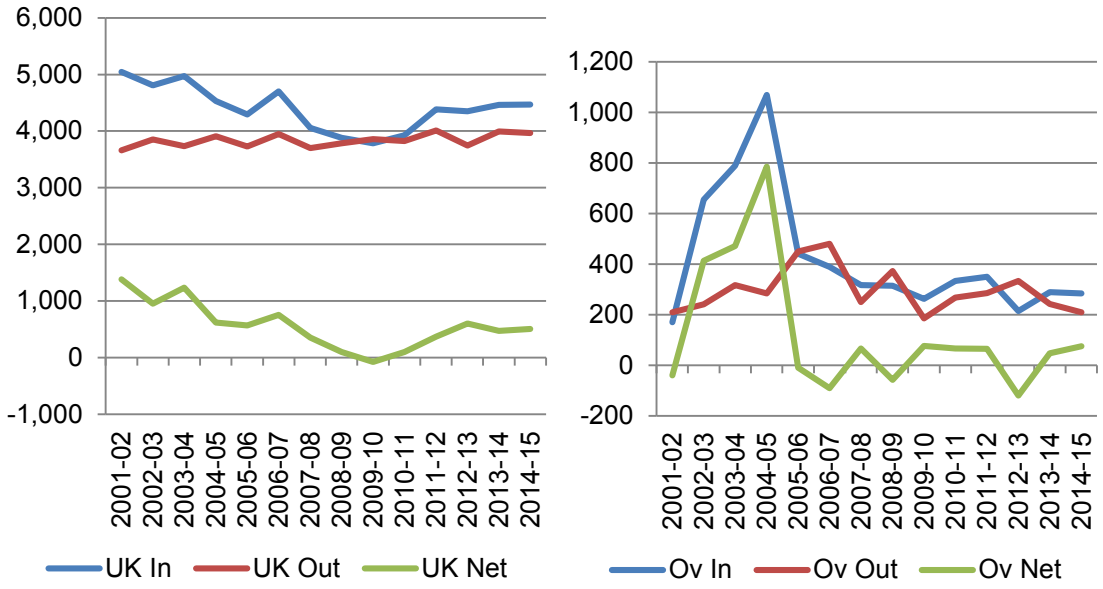
Figure 9.2 WHMA net migration 2001-15



Source: ONS MYE (2015)

9.7 The graph below shows that, with the exception of a period of decline in 2008-10, domestic inflow to Waveney has always been higher than outflow. The pattern of outflow migration has always been reasonably stable at approx. 3,800 people per year.

Figure 9.3 Waveney: UK domestic (left) and overseas (right) migration



Source: ONS MYE (2015)

9.8 The overseas migration graph shows that Waveney, like the IHMA, also experienced a significant increase in overseas migration in 2004-05. This is concealed by the net migration figures due to the high domestic migration also experienced in the early 2000s. Furthermore, overseas migration in Waveney has remained low and in line with outflow migration since 2005-06.

Unattributable population change

9.9 The data discussed above is difficult to interpret because there is a known error in the pre-Census ONS population estimates, UPC (Appendix C). Its presence in the data ensures that the ONS estimated population pre-Census 'balances' with the Census.

9.10 Across the client group, the population growth of 50,236 people included a UPC gain of 5,288 in the period 2001 to 2011. These people were not reported in the 2001 Census, but 'found' in the 2011 Census and the ONS had no statistical data showing how they arrived in the districts. In Waveney the total UPC was -2,511 i.e. people who were not 'found' in the 2011 Census, therefore contributing significantly to a loss in population.

9.11 The table below shows the UPC for Waveney between 2001-11. These figures are outside the components of change discussed above; including UPC as part of the migration analysis would, mean the overall flows were lower by 2,511 in the years before 2011.

Table 9.2 UPC across the WHMA

2001-2	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10	2010-11	Total	Average 2001-11
-260	-247	-328	-216	-255	-238	-190	-220	-202	-355	-2,511	-251

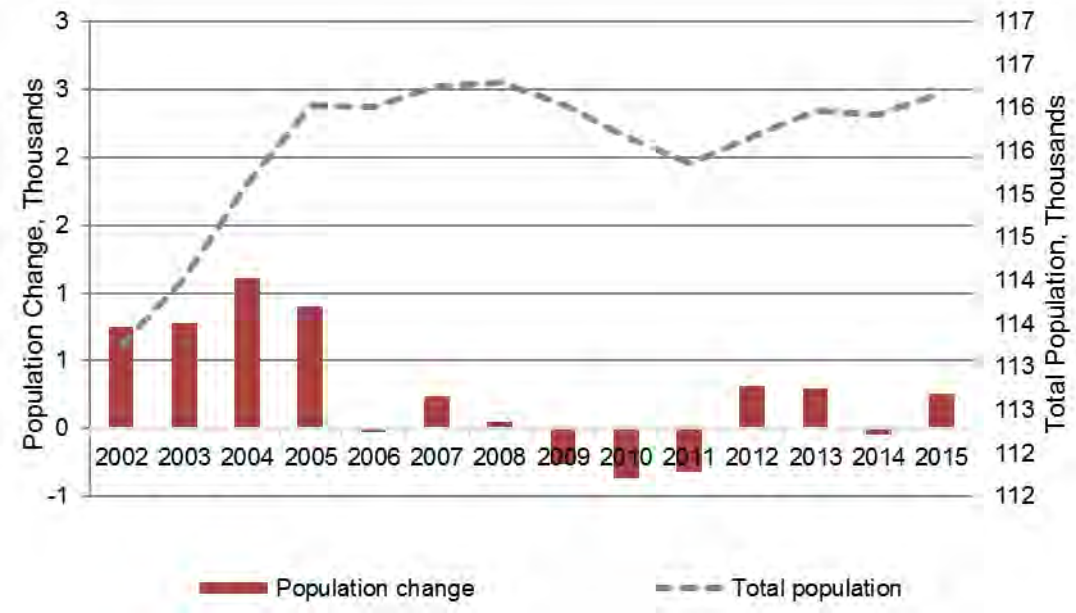
Source: ONS MYE

Summary

9.12 The population increase in Waveney between 2001-15 has only been 3%. High levels of domestic migration at the start of the period kept the population fairly steady; however, continued reduction in natural change combined with negative UPC (-2,511) has resulted in a very small change in the population.

9.13 Overall, the HMA now continues to experience population growth (Fig. 4.8), although this follows a period of decline between 2008 and 2011. The rapid period of population growth between 2001-05 was due to high levels of domestic and overseas migration. This peaked in 2004 when an additional 1,379 people arrived in Waveney as a result of migration. In recent years, natural change has been consistently negative, but UK migration has been on the rise.

Figure 9.4 WHMA population change 2001-15



Source: ONS MYE (2015)

9.14 Between 2001 and 2011 the UPC amounted to 2,511 people who were not resident in the area in 2011 and were not accounted for by ONS estimates of migration and natural change over the period. The ONS Data Tool suggests that a main cause of the UPC is mis-recorded domestic in-migration, whereby people moved out of the area but were not recorded in estimated migration flows.

9.15 The PPG provides no advice on how to manage this error in a SHMA. At examinations elsewhere it has often been suggested that UPC be omitted from projections because that is what ONS have done when preparing their official projections. However, it is possible that the UPC is mis-recorded migration, or equally an anomaly within individual authorities, and this is a valid consideration in our projections. In the next chapter we consider the impact of making this UPC adjustment in our projections.

10 WAVENEY HMA DEMOGRAPHIC EVIDENCE

Method

10.1 In line with the PPG, the starting point of our objective assessment of housing need is the official household projections from the CLG, which are derived from the SNPP produced by the ONS. The SNPP show future population by local authority area and are normally released at two-year intervals, with additional releases in response to new data – recently the 2011 Census. The CLG translates the population into households. The projected growth in household numbers, with a small adjustment for vacant and second homes, is used as the measure of housing need.

10.2 The official projections, like all projections, are trend-driven – that is, they roll forward (project) past trends into the future. Accordingly, still following the PPG, we test and amend them by looking at alternative projection scenarios that adjust for:

- Technical flaws in the official modelling, including:
  - Superseded or otherwise inaccurate historical data - projections are only past trends rolled forward, so a projection based on the wrong trends will be inaccurate);
  - Anomalies in the modelling – the official models are very complex, mainly because they cover hundreds of local authorities; even if the models are accurate 'on average', they will not necessarily be accurate for every single authority in every single year.
- External (non-demographic) factors that bear on demographic change but are not captured in the projections, because they are likely to differ in the future from what they were in the past – in particular the macroeconomic climate.

10.3 For any geographical area, the change in housing numbers is the outcome of three components: The first two factors, natural change (equal to births minus deaths) and migration (UK and international) impact on population change. The third factor is the ratios that turn population into households, known as household representative rates (HRRs, also known as headship rates or household formation rates). Alternative scenarios are mostly based on varying assumptions about migration and household formation. In contrast to natural change, these factors are difficult both to measure for the past and even more difficult to predict for the future.

10.4 Later in this chapter we will sensitivity test the projections and consider alternative scenarios to deal with any factors that the projections do not capture, in line with the PPG. This includes scenarios with UPC included.

10.5 It is important to note that in testing the projections and looking at alternative scenarios, the PPG's starting point is the official projections. The PPG advises that *'the household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are*

not captured in past trends[30] (our emphasis). This testing does not mean that there should be a departure from the official projections; indeed, part of the logic of the official projections is they are a nationally-consistent view of population and household growth across the country.

Official releases

10.6 The official demographic projections are issued in two separate publications:

- ONS produces SNPP, which show population by age and sex, based on rolling forward past rates of natural change (births minus deaths) and migration for each demographic group.
- CLG then converts each SNPP into household projections.

10.7 The factors that translate population into households, known as Household Representative Rates (HRRs, also known as headship rates or housing formation rates), are based on rolling forward past trends for different demographic groups. The resulting household numbers, with a small adjustment for vacant and second homes, are used as a measure of future housing demand, or objectively assessed need.

Recent releases

10.8 The NPPF, published in March 2012, advised that the official CLG household projections should be the starting point for assessing housing need. However, at that time, and until recently, we did not have a full set of recent projections that were fit for purpose.

10.9 The 2008-based projections were increasingly out of date and known to be erroneous. The Census when reported did not support the expected (projected) population of household structure. Effectively the Census disproved the projections. The subsequent 2011-based projections, published in 2013, were labelled 'interim' because of data limitations, and they only ran to 2021.

10.10 IN 2015 CLG produced 2012-based household projections ('CLG 2012'), which were derived from the 2012-based SNPP and superseded earlier versions. In order to model future household HRRs, the CLG 2012 projections used the same method as CLG 2011, but used a different starting point - in that they are based on revised estimates of actual HRRs at 2011, which take account of the 2011 Census results.

10.11 Finally; in 2016, the CLG released the 2014-based household projections, which are derived from the 2014-based population projections and of course superseded earlier versions.

10.12 The household projections, including HRRs, were calculated using the same method as CLG 2012 although used two years' of additional data. However, as we discuss in detail below, the household projections use a very long series of data (1971 onwards) and so the introduction of two years' of additional data is not significant.

[30] Paragraph: 015 Reference ID: 2a-015-20140306

10.13 As noted earlier, the PPG advises that the CLG household projections should form the starting point of housing needs assessments. But at the time of writing the PPG also advises that the 2012-based projections are the most up-to-date estimate of future household growth. This advice has not been updated following the release of 2014-based projections. We believe that this is an oversight, as common sense suggests that studies should use the latest projections.

10.14 Therefore, in this study we take the 2014-base CLG projection as our starting point, though we also use the 2012-based version, as a sensitivity test. In the next section we will test alternative scenarios which are 2015-based.

10.15 The base year 2014 was chosen because it is the base year of the latest official demographic projections. It may be helpful to note that this choice of base year does not have any bearing on the start date of the Local Plan housing requirement. That start date could be any date up to and including 2015 – the latest year for which we have actual demographic data (the MYE).

Population projections

10.16 The table below sets out the official SNPP 2014 for Waveney, over the period 2014-36. Population in the HMA is projected to increase by 8,271 people (376 persons p.a.). Projections show that negative natural change will, and the population increase can be attributed to migration, which over the period 2014-36 will bring an additional 14,622 people into the area.

Table 10.1 WHMA population projections 2014-36

LPA	2014 population	Natural change	Net migration	Total change	2036 population
Waveney	115,919	-6,351	14,622	8,271	124,190

Source: SNPP 2014 (ONS)

10.17 It must be noted that the above projections do not include UPC. It must be noted that the SNPP do not take account of UPC. In our alterative projections scenarios in the next section we will test the impact of the UPC.

Household projections

10.18 Over the projection period, CLG 2014 (Table 10.2) shows the number of households in the study area increasing by 6,578 (299 households p.a.). Waveney is expected to experience a 13% increase in households.

Table 10.2 Household projections 2014-36

LPA	2014 households	Total household change 2014-36	2036 households	Per annum household change
Waveney	51,388	6,578	57,966	299

Source: ONS/CLG 2014

HRRs

10.19 As noted earlier, HRRs are the factor that turns population into household numbers. The HRR is the proportion of people who are household representatives (formerly known as heads of household). Since each household has one representative, the number of these representatives equals the number of households. For the household population as a whole, the HRR is the inverse of average household size; so that, for a given population, higher HRRs mean more households and a greater housing need.

10.20 In the CLG projections, future HRRs are based on rolling forward past trends for each demographic group. The base period being rolled forward in this case is very long, starting at the 1971 Census. Across England CLG 2012 shows lower HRRs, and hence fewer households and smaller housing need, than the previous full version, CLG 2008 (2011-based projections were published in between but were badged 'interim'). This is because the Census found considerably lower HRRs, and hence fewer households than the 2008 projections expected; CLG 2012 rolls forward this more subdued household formation into the future.

10.21 Some analysts consider that these lower rates are permanent. Others maintain that they are due to the last recession and its aftermath, and household formation in the long term will return towards the higher rates projected in 2008, either fully or partially.

10.22 The issue is discussed at length in two recent academic articles, respectively by Prof Ludi Simpson[31] and by Neil Macdonald and Prof Christine Whitehead[32]. Both articles provide in-depth analysis of the 2008 and 2012 projections. The first article finds that:

> *'[The] cause of reduced household formation [in the 2012 projections against the 2008 ones] are varied, began before the recession, and mostly are likely to continue with or without the recession.'*

10.23 The causes referred to include:

- *'a sustained increase among young people not leaving home' which began at the turn of the century and accelerated after 2008;*
- *the introduction of student fees from 1998;*
- *the increase in precarious employment, including the rapid growth of part-time work;*
- *the long-term increase in the number of childless women, … which increased the number of smaller households, [and which] stopped and has fallen since 2000; and,*
- *the increasingly older formation of couples or families, which had increased the number of single-person households in the 1980s and 1990s, [and] has levelled out since 2001'.*

[31] L Simpson, *Whither household projections*? in Town and Country Planning, December 2014, Vol 83

[32] N Macdonald and C Whitehead, *New estimates of housing requirements in England, 2012 to 2037* in 'Tomorrow Series Paper 17' Town and Country Planning, November 2015

10.24 Prof Simpson concludes that some of these factors may be reversed, but the first three 'appear at the moment as fixed circumstances of the policy and economic environment'. Consequently '*we are not in a position to expect further increases in household HRRs of the same kind* [as suggested in the 2008-based projections] *…. The future in the UK is likely to be a continuation of precarious household formation. It will probably be lower than once projected and carry more uncertainty*'.

10.25 In the second article listed above, Macdonald and Whitehead endorse these conclusions. They add that there are further factors to suggest that household formation could be even lower than the 2012 official projections show – including welfare reforms and rising student debt that had not yet occurred at the time of the 2011 Census and are not taken into account by the 2012 projections.

10.26 It is also important to note that, although the CLG 2012 shows lower HRRs than CLG 2008, it still shows improving HRRs overall. The authors show that, while rates increase for some groups and fall for others, '*there will be more 'winners' than 'losers' by a ratio of 3:1, so overall housing formation rates will improve'.* This means that, on balance, more people will have '*an increased chance of setting up their own household'.*

10.27 Macdonald and Whitehead conclude that the 2012 projections:

> *'can be taken as a reasonable indication of what is likely to happen to household formation rates if recent trends continue. This is because, although economic growth might be expected to increase the household formation rate, there are both longer-term structural changes and other factors still in the pipeline (such as welfare reforms) that could offset any such increase.'*

10.28 The research quoted above reinforces the view of the PPG. At national level the HRRs shown in CLG 2012 are the best information available at present. Far from reflecting underlying long-term trends, the rates that CLG projected in 2008 represented an over-optimistic view which has since been refuted by real-life evidence.

10.29 To sum up, authoritative studies have found that there is no justification for a national adjustment to the CLG 2012 HRR, to compensate for the impact of the recession. Logically the same applies to the CLG 2014 rates. CLG 2014 is derived using the same method as 2012, and because it adds just two points to a long series of historical data, the final result is very similar.

Comparing HRRs

10.30 In this section we compare projected HRRs in the HMA with national averages. If rates in the HMA were lower than these averages, this could suggest that the projections carry forward the impact of a local supply shortage – although such evidence is difficult to read, because local differences in HRRs depend on many factors unrelated to the housing market or specifically to housing supply.

10.31 To see if there is evidence of local supply shortages, we examine the 2036 HRRs shown in the CLG 2014 projections and compare them with averages for England (details are at Appendix B Rates below the national average could suggest a

relatively undersupplied market, where household formation is suppressed by inadequate supply. However, we must be cautious in interpreting HRRs as a measure of housing market balance, because they depend on many factors unrelated to that market.

10.32 Insofar as HRRs do tell us something useful about the housing market, the most relevant age groups are young adults in their 20s and 30s. These are the groups where geographical variations in HRRs are most likely to be explained by the availability and cost of housing. For younger age groups, HRRs are too low for meaningful analysis, and for older age groups HRRS are close to saturation, and more driven by factors unrelated to the housing market. (Thus, for older people HRRs depend on relative life expectancies, because as the gap between men and women shrinks there are fewer widows and more couples, so HRRs decrease.) Young adults in their 20s and 30s, and specifically those living in couples, are also those who are losing out in the housing market - with HRRS that have been falling since at least the early 1990s are projected to fall further in the future[33].

10.33 In the case of Waveney, Appendix B shows that HRRs for virtually all demographic groups are at or above the national average. The exceptions are for groups where numbers are meaningless because the numbers involved are vanishingly small: single males aged 15-19 (in this age group the HRR is about 1% everywhere) and previously married males aged 20-24 (numbers previously married in this age group are negligible).

10.34 In summary, our analysis of HRRs in Waveney provides no evidence that household formation in the area has been suppressed by local undersupply of housing.

Alternative projections

10.35 To predict migration, the ONS carry forward the trends from previous years. The choice of base period can be critical to the projection, because for many areas migration has varied over time, and these variations can be carried forward into the future projections.

10.36 Alternative scenarios are mostly based on varying assumptions about migration and household formation. In contrast to natural change, these factors are both difficult to measure for the past and even more difficult to predict for the future. Given our conclusions above on HRRs, we do not revisit these as part of our alternative scenarios.

10.37 In addition to the official SNPP 2014-based projections, we have considered the following alternative projections, prepared on behalf of the client authorities by CRG, which draw on longer or more recent data to inform them:

- 14-year trend excluding UPC (CRG14X) – base period 2001-15
- 14-year trend including UPC (CRG14) – base period 2001-15

[33] Neil Macdonald and Christine Whitehead, *New Estimates of housing requirements in England, 2012 to 2037,* Town & Country Planning Tomorrow Series Paper 17, November 2015

- 5-year trend excluding UPC (CRG5X) – base period 2010-15
- 5-year trend including UPC (CRG5) – base period 2010-15

10.38 All the alternative projections draw on the latest MYE; these roll forward the base period of the projection by one year, to take account of the 2015 MYE. These alternative projections vary in two key elements: the migration base period and the inclusion or exclusion of UPC. Fuller details of these projections are provided at Appendix D . The table below summarises the dwellings per annum for each projection. For reference, the first column shows the official projections. The table shows that an alternative base period and the inclusion/exclusion of UPC does make a difference to the future projection of the number of dwellings.

Table 10.3 Alternative projections: dwellings per annum

LPA	ONS/CLG 2014	CRG14X	CRG14	CRG5X	CRG5
Waveney	321	528	482	374	357

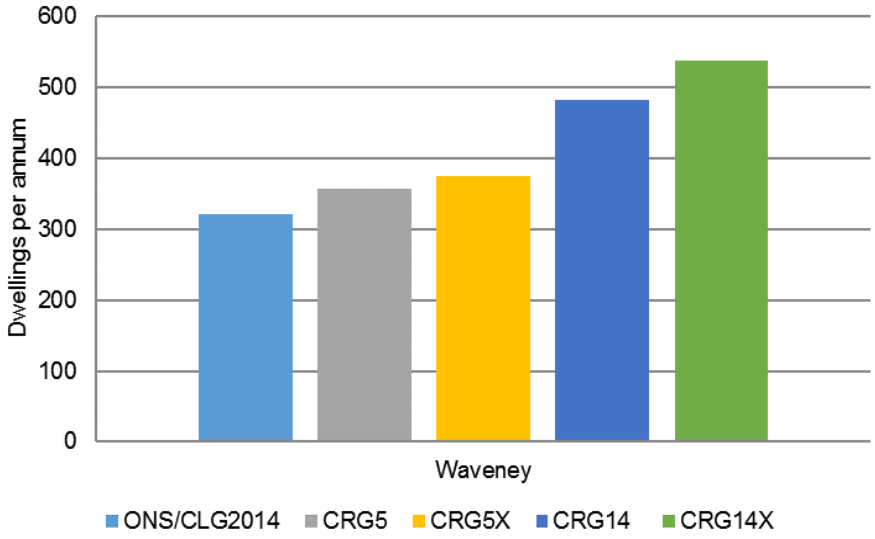
Source: ONS/CRG 2015 (Appendix D)

UPC

10.39 As explained earlier, UPC is excluded from the official projections because ONS has improved their data capture methods, and therefore they do not expect UPC to recur in the future. We do not know what caused the UPC in the study area; excluding it from the future projections could underestimate or overestimate trend-driven population change.

10.40 CRG14X and CRG5X both exclude UPC from their projections. Because the UPC for Waveney is negative, these X projections show greater need for housing when compared to their equivalent projections including UPC.

Figure 10.1 WHMA household projection comparisons



Source ONS/CRG 2015

10.41 Figure 10.1 shows the official projections and CRG trend projections for WHMA, showing clearly the impact of including/excluding the UPC. As UPC was identified at

the 2011 Census, it is only part of the data up to 2011. Therefore, for the projections which include the UPC, the five-year trend only includes one year of UPC (2010-11), whereas the 14-year includes the full 10 years (2001-14).

10.42 There are differences between the alternative projections for Waverley, partly due to the UPC. But in relation to our preferred projection, which is the five-year version, the with-UPC and without-UPC projections only differ by 17 homes per year. Because the without-UPC version shows slightly greater housing need, in the interest of positive planning we think it is advisable to use that version. But this does not make a significant difference to the result.

London

10.43 A number of local authorities have chosen to adopt a demographic projections based on 10 years, or even longer period, in order to reduce volatility and capture underlying long-term trends. This approach has been championed by the Greater London Authority (GLA), who have repeatedly made the case that LPAs in and around London, or with London links, should adopt a longer-term trend when estimating their demographic need. In the London case this is because migration flows between London and elsewhere pre, post, and during the recession were very different.

10.44 The short-term base period used by the ONS therefore has the potential to not accurately reflect likely migration, and so too the need for new homes, over a long plan period, for authorities where future migration flows to and from London are anticipated to reflect longer term trends.

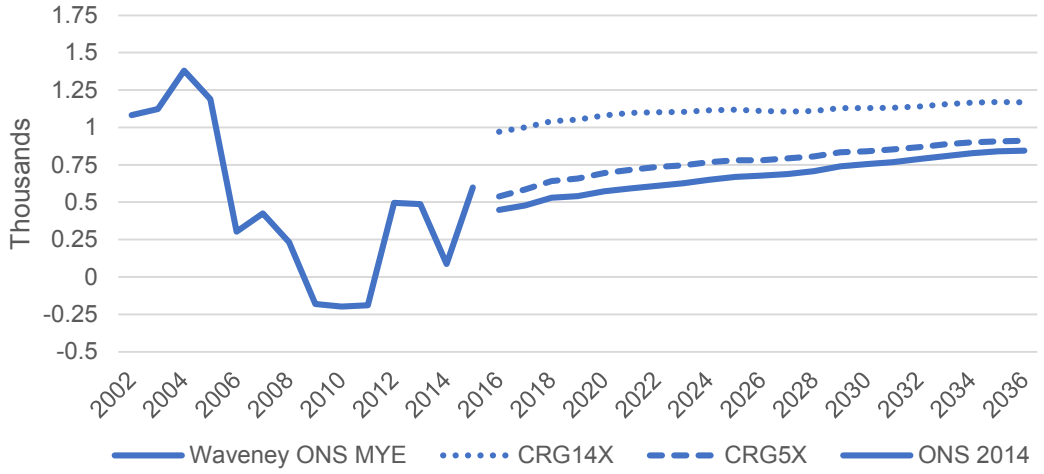
10.45 While London has links with the Suffolk authorities and has an influence on migration, it is not the only driver of migration flows so the GLA advice is less directly relevant. Appendix E discusses the GLA's projections and their implications for the study area.

Preferred projection

10.46 We have tested the official projections. In the case of Waveney, we believe UPC should be excluded in the base period for projections. However, UPC cannot explain all the differences between the alternative projections. In order to explain this, the components of change (natural change and migration) have been examined to inform our recommendation. From the analysis of natural change, it is clear that it is similar in all projections to the official projections.

10.47 In looking at net migration, the differences between the projections are clear. As explained in Section 9, there was a peak in migration in Waveney in approximately 2004-05. This was caused by high levels of overseas migration following the EU accession. The 14-year base period covers this period of unusually high migration, and projects it forward. The five-year trend starts in 2010, and therefore is not affected by this migration pattern.

Figure 10.2 Waveney past and future net migration



Source: ONS MYE and CRG

10.48 The chart above shows actual net migration (ONS MYE), the official projections (ONS 2014), and the CRG14X and CRG5X projections for Waveney.

10.49 It is clear that the CRG5X is much more closely aligned to the official projections than the CRG14X. It is expected that there will be a difference between the official and the alternative projections; however, we would expect the overall shape of the trend to be similar because they share four years of data (2010-14). The CRG14X projection starts at a much higher value than the MYE ends, suggesting that the migration patterns from 2004-05 have had an adverse impact on the legitimacy of the future projections.

10.50 Longer-term projections (14-year) are often used as they help to smooth out any peaks and troughs in the year-to-year migration data while still picking up long-term trends. In this instance, the 14-year base period is not considered a representative basis for forecasting future growth. This is because of the effects of the EU accession in increasing both international and then latterly domestic migration in the study area.

10.51 It is our view that the EU accession in 2004 was felt more acutely in the client authorities, including Waveney, than other parts of the UK. The population that migrated to the client authorities eventually started having children, eventually resulting in increased birth rates. This was a one-off event which is unlikely to be repeated in the future, and to project this forward would result in an overstated level of housing need.

10.52 The CRG5X does not pick up this unique migration trend. Therefore, it is likely to be more closely aligned to a future official projection, so represents the preferred projection. In coming to this view, we have considered the relationship between Waveney and London, which forms part of the domestic migrations flows.

10.53 As established earlier, UPC is population that the 2011 Census 'discovered' because the MYEs did not know how these people came to live in the area. UPC will either be negative or positive, depending on whether the Census found more or fewer people

than expected. The UPCs are unique to each authority, and for some represent a significant quantum of the population.

10.54 In Waveney's case, because UPC is negative, it is excluded in the future projections. While this assumes that UPC will not happen again in the future and there is no evidence to suggest it will not, this approach is considered to align with the NPPF's direction of positive planning. In any event, because it is most appropriate to use a five-year migration trend, only one year of UPC would have been rolled into the projections so the impact is modest.

Summary

10.55 As directed by the PPG, we have tested the official projections against a number of alternatives. In this instance, we have concluded that the CRG5X projection should be used as the demographic starting point which will form the first stage of calculating the OAN for the following reasons.

10.56 UPC is significantly negative within Waveney. Despite using the ONS data tool to test the probability of the causes of UPC, we cannot satisfactorily explain it. But because UPC is negative for Waveney, including it in the projections would reduce the demographic starting point which we do not regard as positive planning. For this reason, we think there is a valid reason to set aside any alternative projections which include UPC.

10.57 The EU accession in 2004 has resulted in levels of migration in the client authorities which are unlikely to be replicated in the future. The longer-term trend projections would carry forward this unique migration pattern, and they are therefore not considered to be a representative base period upon which to base any calculations of housing need. The longer-term projections are therefore set aside.

10.58 We have sought to incorporate the latest available data; in this case the 2015 MYEs. This is to future-proof the findings of this report as far as possible. For this reason, we have set aside the official projections and rely on the CRG5X projection which relies on a 2010 to 2015 trend period over the 2009-14 trend which underpins the official projections.

10.59 The table below sets out the recommended demographic starting point for Waveney based on the CRG5X projections.

Table 10.4 WHMA demographic starting point

	Waveney
Total dwelling change	8,223
Per annum dwelling change	374

Source: CRG5X (Appendix D)

11 WAVENEY HMA MARKET SIGNALS AND PAST PROVISION

Introduction

11.1 The starting point of our 'market signals' analysis is provided by paragraphs 2a 015 and 019 of the PPG:

> *'The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply.'*[34]

> *'The housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals, as well as other market indicators of the balance between the demand for and supply of dwellings. Prices or rents rising faster than the national/local average may well indicate particular market undersupply relative to demand …'*[35]

11.2 Considered together, the above passages explain why market signals are relevant and how they should be used in relation to housing needs assessments. In summary:

- Demographic projections roll forward past reality – the amount of housing that has been provided in the reference period on which they are based.
- If this past supply met demand (need) in full then, other things being equal, the projection should be an accurate reflection of future demand.
- But if past supply under delivered against demand, then the projections will carry forward that under delivery; therefore, they understate demand and should be adjusted upwards.
- To determine whether past supply has indeed under-delivered against demand, the PPG suggests two kinds of evidence: a series of specified 'market signals' such as prices or rents, and 'other indicators' which are not specified.

11.3 The PPG advises that housing needs assessments compare market signal indicators to areas that are similar. Paragraph 020 of the PPG states that:

> *'Appropriate comparisons of indicators should be made. This includes comparison with longer term trends (both in absolute levels and rates of change) in the: housing market area; similar demographic and economic areas; and*

[34] Reference ID: 2a-015-20150227
[35] Reference ID: 2a-019-20150227

nationally. A worsening trend in any of these indicators will require upward adjustment to planned housing numbers compared to ones based solely on household projections."[36]

11.4 The ONS publishes area classifications for local authorities based on socio-economic and demographic data from the 2011 Census. It aims to identify local authorities which are characteristically similar. Table 11.1 sets out the comparator areas for Waveney. These have been used in the analysis of house prices and affordability indicators, as set out in Appendix F, and referred to in the analysis that follows.

Table 11.1 Waveney and its comparator areas

Most similar LPA	Waveney
1	Sedgemoor
2	North Devon
3	Torridge

Source: ONS Area Classifications for Local Authorities

11.5 Set out below is the analysis of past provision and market signals. We first look for direct evidence that housing land supply fell short of demand in the past periods whose trends the projections roll forward. We then analyse market signals, or market indicators, which could provide indirect evidence of such undersupply. This analysis covers the market signals identified in the PPG, except for land prices, on which the necessary data are not available. These indicators comprise:

- House prices
- Affordability, which is the ratio of house prices to earnings
- Rents
- Overcrowding and concealed households.

11.6 In relation to each signal, we compare absolute levels and recent change with national averages and with surrounding and similar areas. A high level of the indicator, or a high rate of growth relative to these comparator areas, could suggest that housing was undersupplied, and therefore a market signals uplift could be justified.

11.7 For the avoidance of doubt, all the market signals data we analyse below includes those parts of the Broads Authority which fall within Waveney.

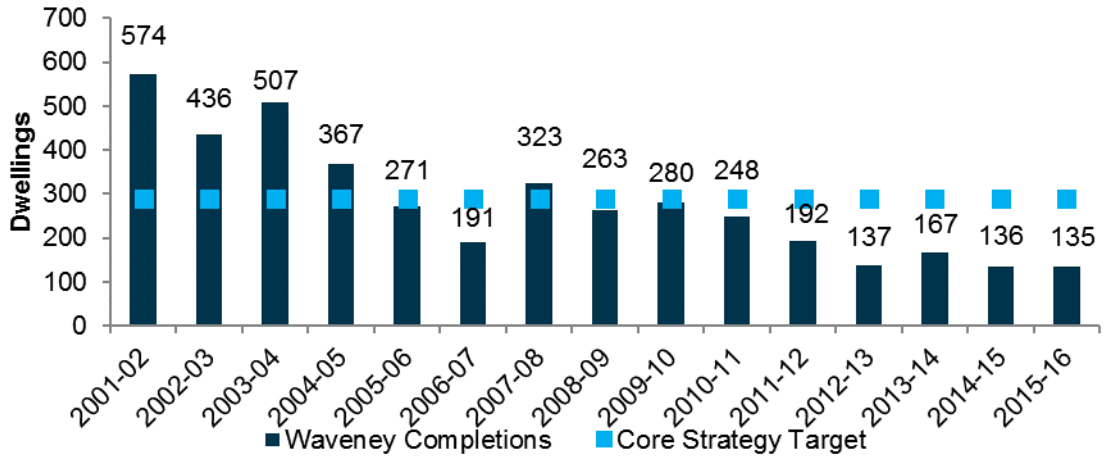
Past housing delivery

11.8 In this section we analyse housing completions in the 2010-2015 base period of our demographic projections. The analysis searches for evidence that housing land in that period was undersupplied against demand, and therefore the projections underestimate demand and should be adjusted upwards. For this, we compare local trends in completions with national totals. If the local area follows a similar path to the

[36] Reference ID: 2a-020-20150227

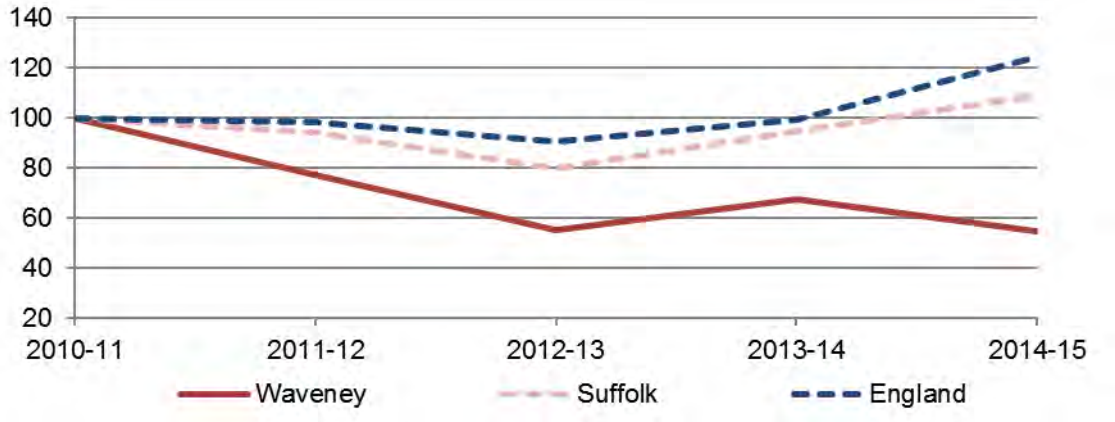
national total, this suggests that variations in completions over the period were due to the economic cycle, which is a macroeconomic issue beyond the control of the local authority. Conversely, if completions do not follow the national pattern this may reflect local supply factors. For context, we also compare past housing completions with the policy targets applicable at the time. But completions below target do not necessarily prove that the market was undersupplied; it may be that past targets were set above demand, if policy aimed to direct growth to certain geographical areas.

Figure 11.1 Waveney net housing completions



Source: WDC

Figure 11.2 Housing completions 2010-15 (indexed to 2010-11 = 100)



Source: LPAs AMRs and CLG (2015)

11.9 In the long term (Figure 11.2), housing completions in Waveney have been on a declining trend, both in the long boom until 2007/08 and in more recent years. In the base period of our demographic projections, 2010-15, completions fell against the national trend, However Waveney did demonstrate a five-year housing land supply at all times. This suggests that low and falling delivery in the area may have reflected low demand, rather than an undersupply of development sites – in which case there would be no reason to uplift the demographic projections.

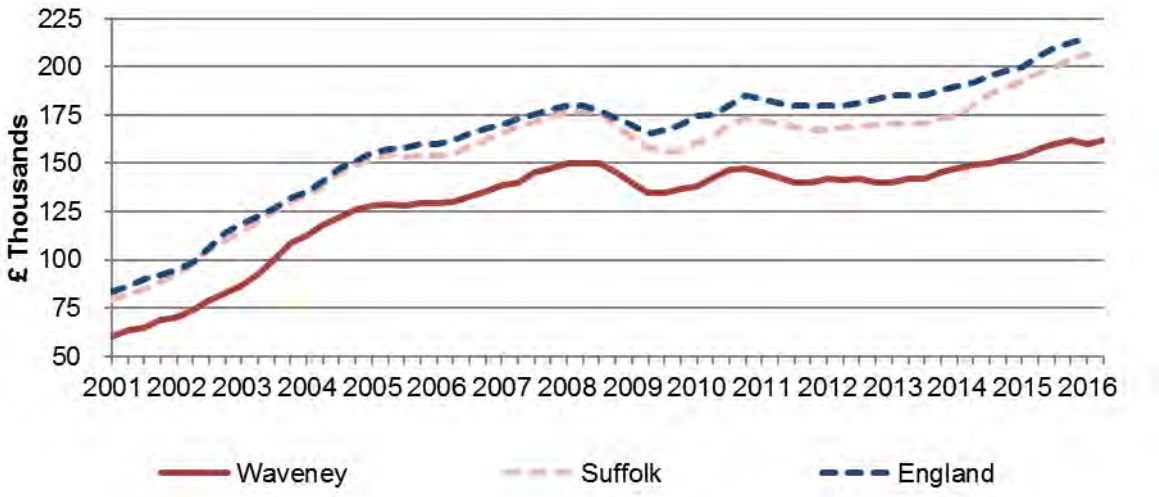
11.10 From the evidence of housing completions alone it is difficult to reach a conclusion on the balance of the market in Waveney. More evidence is provided by market signals, which we discuss in the next section.

Market signals

House prices

11.11 ONS publishes quarterly median house price data based on Land Registry price paid data. The most recent data runs to the second quarter of 2016, and it has been used to assess the house prices of the client authorities, compared to national and regional figures. Figure 11.3 shows the median house prices for Waveney, Suffolk, and England, from 2001 to 2016.

Figure 11.3 WHMA median house prices 2001-2016

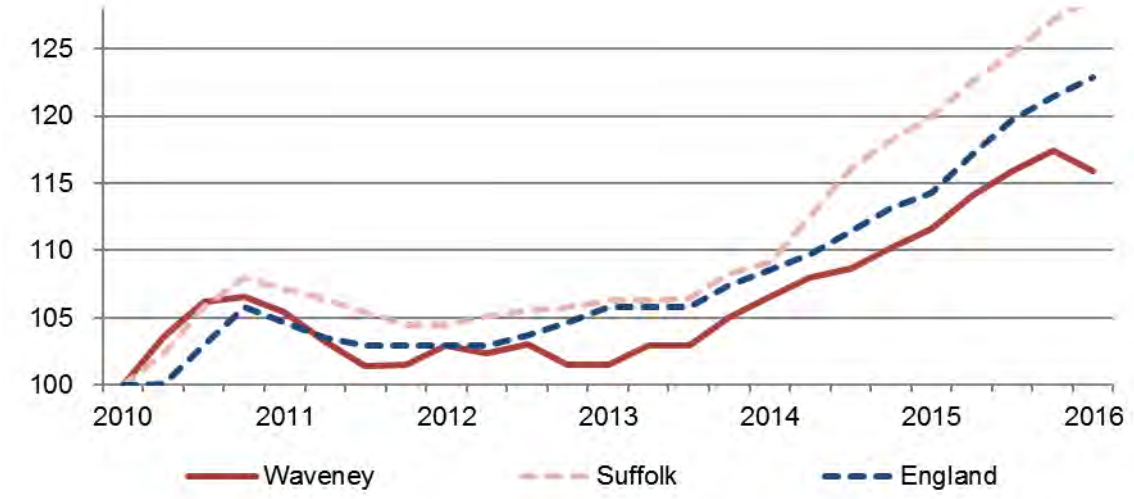


Source: ONS, HPSSA Dataset 9, Table 2a

11.12 Waveney has always had lower house prices than England. In recent years, house prices in Waveney have been at approximately £160,000, compared to a county and national level of just over £200,000.

11.13 The figure below shows the indexed median house prices for Waveney and compares this to England and Suffolk. Graphs showing the indexed house prices of Waveney compared to its comparator areas can be found in Appendix F.

Figure 11.4 WHMA indexed median house prices 2010-2015



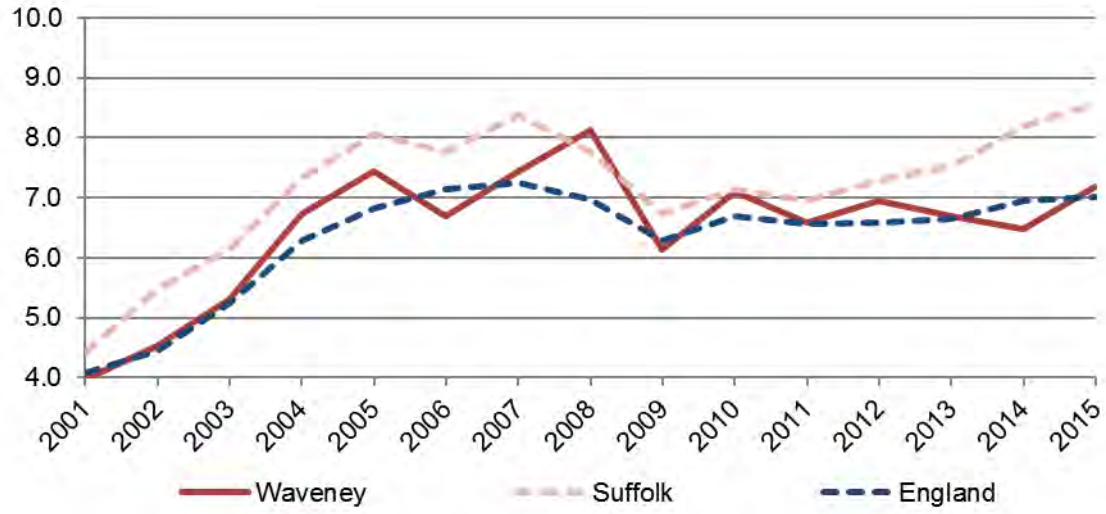
Source: ONS, HPSSA Dataset 9, Table 2a

11.14 Figure 11.4 shows that house prices growth in Waveney has been significantly slower than England and Suffolk. Generally, it has followed a similar pattern to England; however, in mid-2013, Waveney's house prices decreased, and they have been slow to increase since.

Affordability

11.15 CLG publishes annual affordability ratios, which have been calculated by comparing lower quartile house prices to lower quartile incomes. This ratio provides an indication of how affordable a local authority area is: a high ratio indicates low affordability, where the cheapest dwellings are less financially accessible to people on the lowest incomes. Graphs showing the affordability ratio of Waveney compared to its comparator areas can be found in Appendix F.

Figure 11.5 WHMA ratio of lower quartile house prices to lower quartile workplace earnings

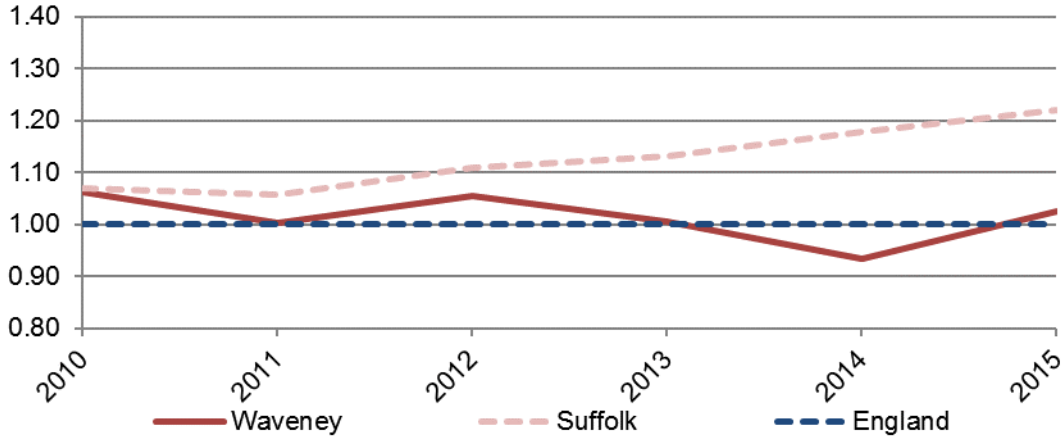


Source: CLG Table 576 and discontinued Table 576

11.16 The figure above shows that Waveney has an affordability ratio which is in line with that of England. This relative position has been unchanged over time, except for an untypically high figure in a single year (2008).

11.17 Figure 11.6 shows how the levels of affordability in Waveney have changed over the period 2010-15 as a ratio of England's affordability. This also shows that it has remained in line with England over time.

Figure 11.6 WHMA ratio of lower quartile house prices to lower quartile workplace earnings, as a ratio of England



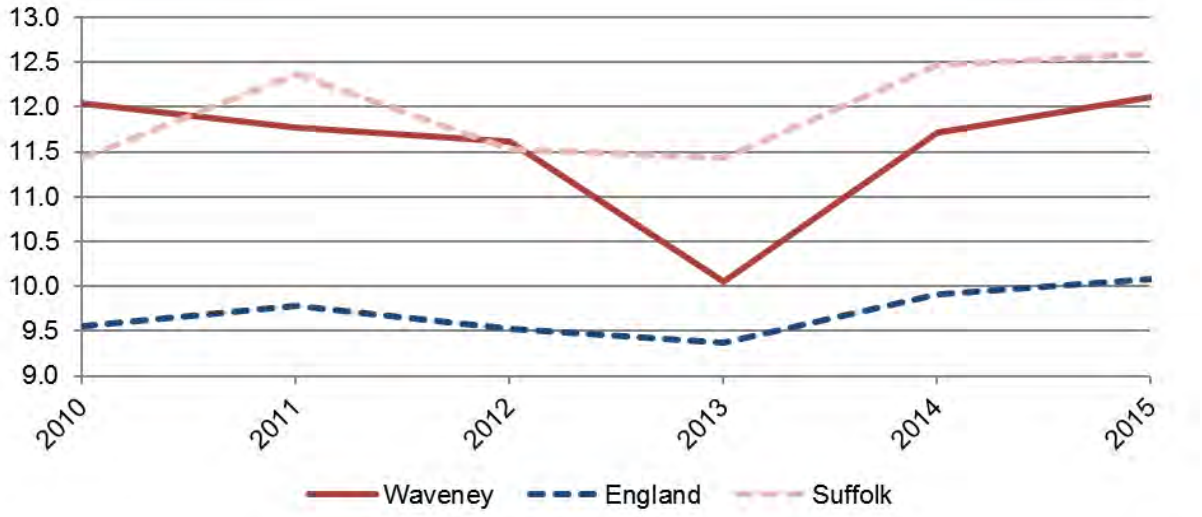
Source: CLG Table 576 and discontinued Table 576

11.18 The above analysis is based on the PPG's advice that the ratio between lower quartile house prices and lower quartile earnings can be used to assess the relative affordability of housing. However, as acknowledged by the CLG, this affordability ratio reflects the earning power of commuters rather than the earnings of residents living in a given authority. Therefore, using ONS data for house prices and resident

earnings, we have calculated a ratio of lower quartile house prices to lower quartile earnings by place of residence.

11.19 This data is shown in Figure 11.7. By this measure Waveney is less affordable than England, but only marginally.

Figure 11.7 WHMA ratio of lower quartile house prices to lower quartile resident earnings

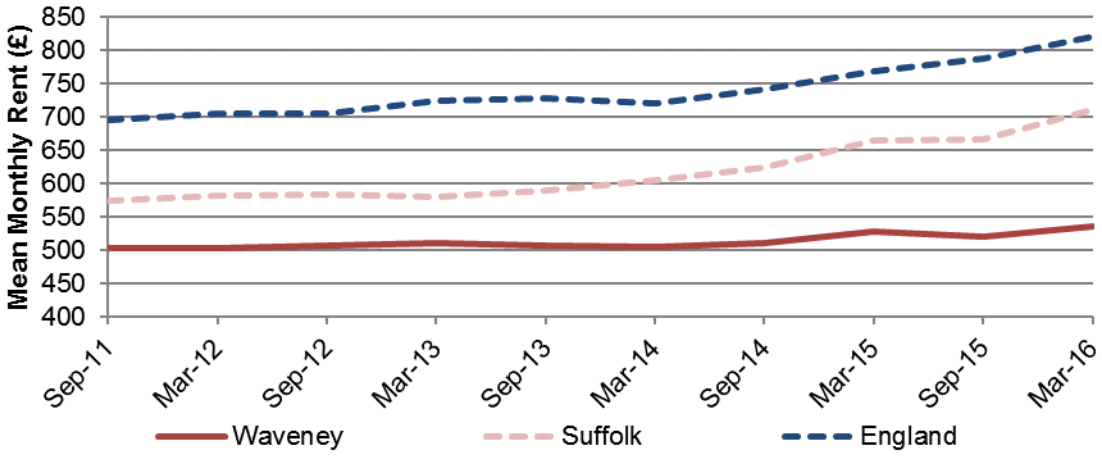


Source: ONS HPSSA Dataset 15, ASHE Table 8, and PBA (2016)

Rents

11.20 Data on market rents is produced by the Valuation Office Agency (VOA); however, it is only available for a relatively short period between 2011 and 2016.

Figure 11.8 WHMA mean monthly rent



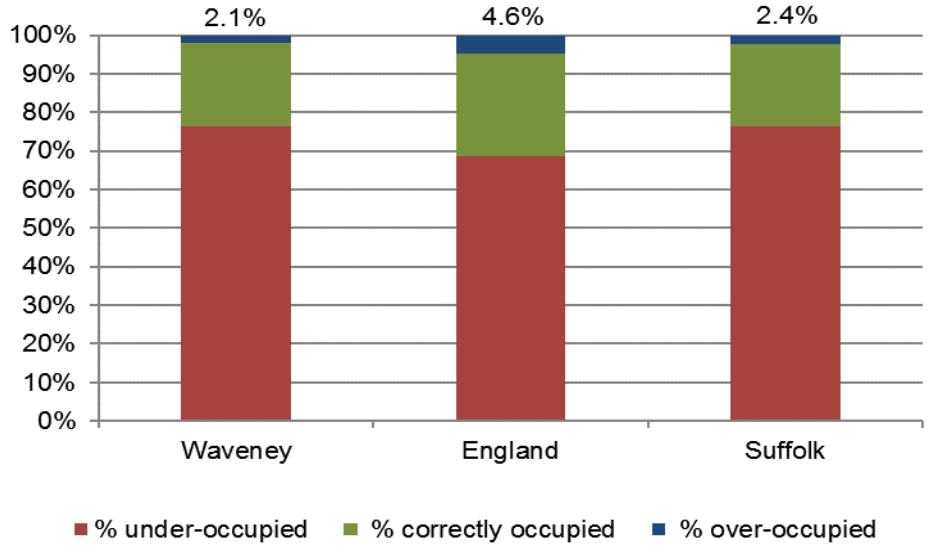
Source: VOA

11.21 The figure above shows that the rents in Waveney have remained stable since 2011, with an increase of approximately 8%. They are also significantly lower than both England and Suffolk.

Overcrowding and concealed households

11.22 The figure below shows occupancy ratings, as defined by the ONS and calculated from 2011 Census data. Starting from the base of the columns, the chart shows the percentage of dwellings that are under-occupied, correctly occupied and over occupied according to ONS definitions, which are based on the 'bedroom standard'.

Figure 11.9 WHMA overcrowding and under-occupation

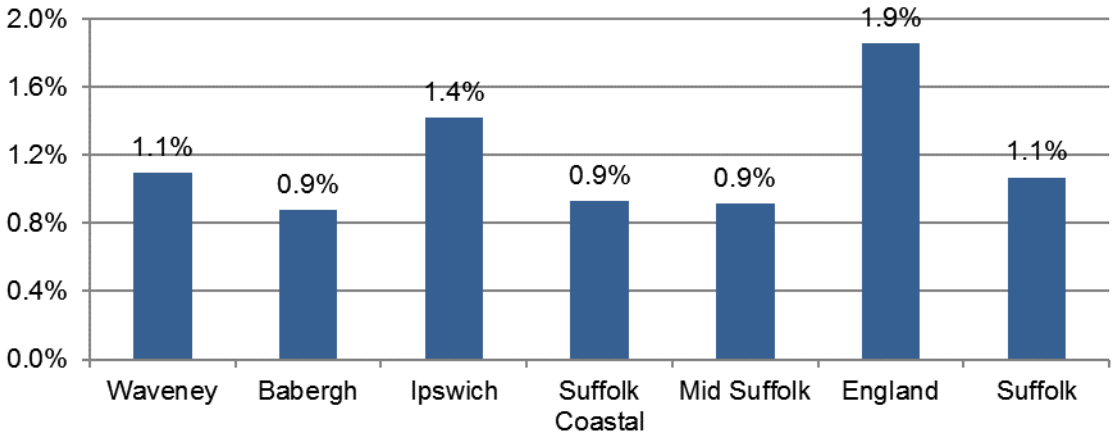


Source: Nomis, Table QS412EW – Occupancy rating (bedrooms)

11.23 For Waveney, overcrowding was below the national average, as only 2.1% of dwellings are considered overcrowded compared to 4.6% in England.

11.24 A further indicator is the number of concealed families. A concealed family is one living in a multi-family household who is not the primary family in that household. The definition includes couples with or without dependent children and lone parents of depended children, but it excludes single people. An abnormally large number of concealed households can also be a sign of market pressure.

Figure 11.10 WHMA concealed households



Source: Nomis, Table LC1110EW (October 2016)

11.25 As with the overcrowding data, Waveney has a lower level of concealed households than the national average, at 1.1% compared to 1.9%.

11.26 Overall, Waveney does not suffer from above average levels of overcrowding or concealed households.

Scale of the uplift

Guidance and precedent

11.27 The PPG gives no specific advice on the scale of housing market uplift, merely saying that any such adjustment should be 'reasonable':

> *'The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (e.g. the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be.'*[37]

> *'The more significant the affordability constraints (as reflected in rising prices and rents, and worsening affordability ratio) and the stronger other indicators of high demand (e.g. the differential between land prices), the larger the improvement in affordability needed and, therefore, the larger the additional supply response should be.'*[38]

11.28 Based on the PPG requirements, inspectors' decisions approached the matter as an exercise of judgement.

11.29 In Eastleigh, the inspector noted that affordability had worsened more than the national average and rents had risen more than the average. On this basis he concluded that '*a cautious approach is reasonable bearing in mind that any practical benefit is likely to be very limited because Eastleigh is only a part of a much larger HMA… Exploration of an uplift [to the demographic projections] of, say, 10% would be compatible with the 'modest' pressure of market signals*'.

11.30 In Uttlesford, the inspector mentioned that house price increases had been slightly less than for Essex and England but from a very much higher base; median rents were higher than these comparators and had risen faster; and affordability had risen to a much higher peak prior to the recession. Taking these market signals as well as affordable need 'in the round', the Inspector advised an uplift of 10%. He did not apportion the uplift between these two factors.

11.31 In Canterbury, the inspector focused on three main market signals:

- Median house prices 12% above the national average
- House price growth some 20 percentage points above the national average

[37] Reference ID: 2a-020-20140306

[38] Reference ID: 2a-020-20140306

- Affordability ratio consistently above the national benchmark - currently 9 against 6.5 for England

11.32 The Canterbury inspector recommended an uplift of 30% to take account of these market signals, together with future jobs, affordable housing need and a post-recession recovery in HRRs. The inspector noted that these four factors overlapped and did not apportion the uplift between them.

11.33 From the three cases discussed above we cannot draw definite conclusions about the correct market signals uplift for each of the relevant LPAs. This is partly because the evidence used in Eastleigh, Uttlesford and Canterbury is not directly comparable: the indicators used are not always the same, some are measured as absolute levels and others as rates of change; they refer to different dates and are compared with different benchmarks. A further difficulty is that only one of the three inspectors, in Eastleigh, provides an uplift for market signals alone. In the other two areas the adjustments they propose also take account of affordable need, future jobs and the impact of the recession on household formation.

11.34 Added to this, more recent examinations have suggested that inspectors are taking a more critical approach to when a market signals uplift should be applied. At Maidstone, a 5% uplift was tested at examination. However, the Inspector's interim findings included the removal of a 5% uplift intended to relieve market pressures on the basis that it was '*unlikely to have a significant effect on market values, particularly if developers do not increase building rates by the same margin*'[39].

11.35 In short, the size of any market uplift cannot be simply inferred from earlier examples; it also requires judgement.

Determining the uplift

11.36 The table below sets out a summary of the past provision and markets signals for Waveney.

[39] http://www.maidstone.gov.uk/__data/assets/pdf_file/0008/134873/ED-110-Inspectors-interim-findings-on-our-Local-Plan-22-December-2016.pdf para 26

Table 11.2 WHMA market signals summary

Indicator		Waveney	England
Median house prices (£)	2016	162,000	218,000
	England comparison (LPA - England)	-56,000	
Median house price growth	2010-15	11.6%	14.3%
	England comparison (LPA - England)	-2.7 pp	
Affordability (work place earnings)	2015	7.2	7.0
	England comparison (LPA - England)	0.2	
Affordability (resident's earnings)	2015	12.1	10.1
	England comparison (LPA - England)	2.0	
Private monthly rent cost (£)	2015	521	788
	England comparison (LPA - England)	-267	
Over-occupancy	2011	2.1%	4.6%
	England comparison (LPA - England)	-2.5 pp	
Concealed households	2011	1.1%	1.9%
	England comparison (LPA - England)	-0.8 pp	

11.37 None of the market signals for Waveney point to an undersupplied market. Thus, the district has house prices lower than England and Suffolk and its affordability has been consistently in line with England.

11.38 There is just one piece of evidence that suggests possible undersupply: the district's failure to meet delivery targets over our base period. The fact that Waveney had a five-year land supply throughout the period suggests that delivery below targets could have been due to deficient demand rather than inadequate land supply.

11.39 Given the above evidence, Waveney could merit no market signals uplift or a minimal uplift. However, given the cause of previous undersupply appears to be due to demand deficiencies, it is unlikely that applying a modest market signals uplift would resolve these issues. We therefore recommend no market signals uplift.

12 WAVENEY HMA JOBS AND HOMES

Introduction

12.1 This section examines whether housing provision in line with our preferred demographic projections would support enough workers to match the future job growth expected in the area. If that were not the case, in line with the PPG the projections should be adjusted upwards, unless the labour market can be brought into balance by other means, such as transport infrastructure.

12.2 The NPPF at paragraph 70 says that planning should integrate the location of housing, economic activity and community facilities and services. The PPG discusses the relationship between housing need and employment at paragraph 018[40]. It advises that plan-makers should make an assessment of future job growth and notes that, if future labour supply is less than this projected job growth, this could

> *'result in unsustainable commuting… or reduce the resilience of local businesses. In such circumstances, plan-makers will need to consider how the location of new housing and infrastructure development could help address these problems.'*

12.3 Planning Inspectors have interpreted this to mean that demographic projections should be tested against expected future jobs, to see if housing supply in line with the projections would be enough to support those future jobs. If that is not the case, the demographically projected need should be adjusted upwards accordingly; such adjustments overlap with the adjustments for past supply and market signals discussed in Section 6[41]. An alternative solution may be changes in commuting, whereby a labour deficit in one area is balanced by a labour surplus in neighbouring areas, provided that the planning authorities concerned are in agreement and the resulting travel is sustainable.

12.4 Inspectors' advice also suggests that future jobs cannot be used to cap demographic projections. In other words, if the demographic projections provide more workers than are required to fill the expected jobs, they should not be adjusted downwards. One reason for this, as explained by the Bath & North East Somerset Inspector amongst others, is that much of the demand for housing is not driven by job opportunities, and people who do not work also need somewhere to live.

12.5 To provide an integrated view of future jobs, population and housing, we have used the local economic forecasts produced by Experian and Cambridge Econometrics (the East of England Forecasting Model).

[40] Reference ID: 2a-018-20140306

[41] All adjustments referred here are policy-off. As confirmed by the High Court securing a 'policy on' regeneration led job target is outside the housing OAN (most clearly in Borough Council of Kings Lynn and West Norfolk v Secretary of State for Communities and Local Government, ELM Park Holdings Ltd. EWHC 2464.)

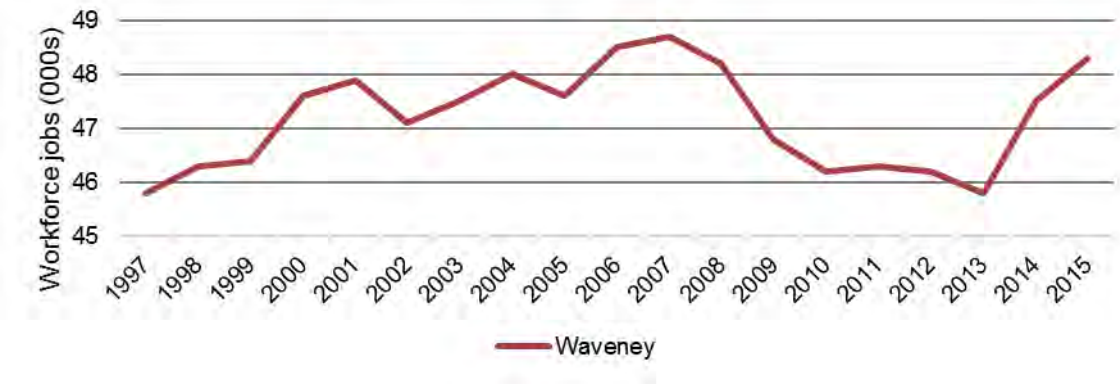
Past trends

12.6 Before considering how many new jobs are forecast we briefly consider past trends. This is because the PPG suggests we look at past trends and/or forecasts. So there is no requirement to plan for past trends (or forecast growth) but it is sensible to consider them.

12.7 Most historic economic data dates back to 1997 when the ONS introduced the Annual Business Inquiry. However, caution is needed when simply looking at the average 1997 onwards because this spans one or more economic cycles. This distorts the data.

12.8 The most robust way to consider past trends is to look across an economic cycle. The Bank of England considered that the previous economic cycle lasted from 1992 until 2007 ('peak to peak'). So the current economic cycle commenced in 2007 and while the end of the cycle is still not clear the current day is a reasonable approximation; especially with the economic shock of Brexit.

Figure 12.1 WHMA workforce jobs 1997-2015

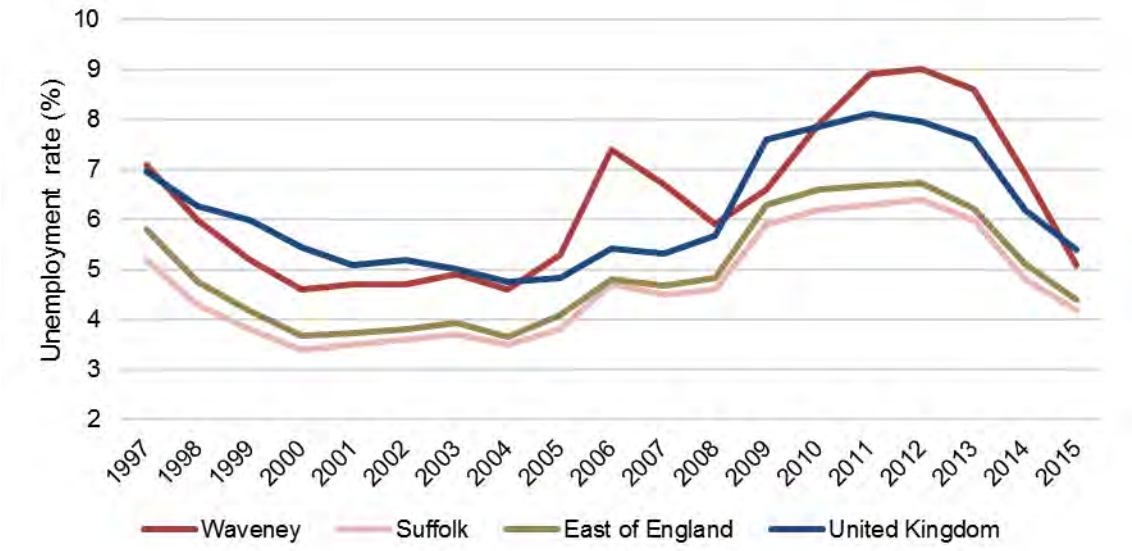


Source: Experian

12.9 The above figure shows that workforce jobs reached a peak in 2007 in Waveney, before the economic crisis caused a period of rapid decline, until 2013 when it started to increase again. Since then, Waveney has only experienced a workforce jobs growth of 2,500. In 2015, Waveney had not yet passed its pre-recession peak in workforce jobs, whereas most of the client authorities had.

12.10 Looking at how jobs are filled, we have briefly considered unemployment trends across the same period. The chart below shows Waveney in the context of the county, region and national position. In broad terms, the HMA has tracked the county, region and national rates over the period with the exception of a pronounced shock in 2006 following a period of improvement relative to the national position. Waveney experienced higher unemployment peaks than the national picture between 2011-14, although this has been falling, Waveney remains a percentage point higher.

Figure 12.2 WHMA unemployment rate (%) 1997-2015



Source: Experian

East of England Forecasting Model

12.11 The EEFM has its roots in regional planning and is now managed by Cambridgeshire Insight, part of Cambridgeshire County Council on behalf of a large consortium of authorities in the East of England and beyond.

12.12 We use EEFM 2016, which was published in August 2016 but nevertheless takes no account of Brexit. Cambridge Econometrics are now producing the forecasts, having replaced Oxford Economics (OE), but the model itself is still as designed by OE.

How the model works

12.13 EEFM is a fully integrated model, which provides a consistent view of a range of economic and demographic variables. In the model population change, and the resulting housing demand, are driven by the demand for labour as well as demographic factors. For each local authority district the model proceeds as follows.

Labour demand

- Demand, measured by the number of workplace jobs[42], depends partly on the size of the local population – because people's consumption of local services creates jobs in retail, leisure and so forth – and partly on wider national / global demand. To turn workplace jobs into resident workers the model proceeds in three steps:
  - It applies a double-jobbing[43] factor to translate workplace jobs into workplace people employed.

[42] In this report job numbers cover all economic sectors, not just the 'B-class' sectors that occupy 'employment space' (industrial space, warehousing and offices).

[43] Double-jobbing is the difference between jobs and people employed. It results from the fact that some people have more than one job. This is not uncommon, partly because many jobs are part-time.

- It subtracts net commuting from workplace people employed to arrive at the demand for resident workers.

Labour supply

- On the supply side, the future resident population is initially determined by natural change and trend-driven migration ('non-economic migrants') (the EEFM makes its own projections rather than using the official ONS ones).
- To translate the population into labour supply (economically active people, the labour force) the model applies economic activity rates.

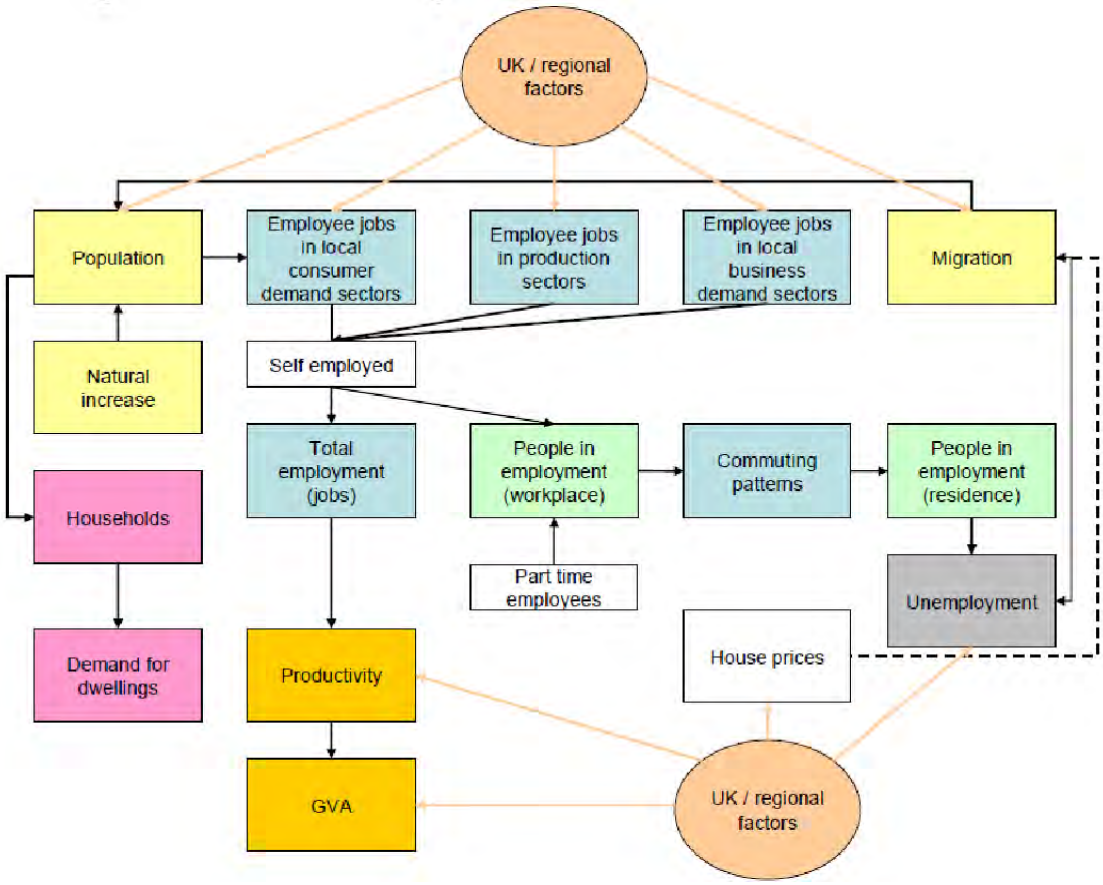
Labour market balance

- It then compares the resulting supply with the labour demand estimated earlier, to produce unemployment in each area. Places with low unemployment attract above-trend net migration ('economic migrants') as people move to places where there are more job opportunities. Hence the resident population in these places rises above the initial trend-driven number, while conversely in places where unemployment is high population falls below the trend-driven number.

Housing demand

- Finally, the resulting population is translated into household demand, again using the forecasters' own method, using projections of persons per dwelling, rather than the CLG household forecast.

Figure 12.3 Main relationships between variables in the EEFM model



Source: Oxford Economics, East of England Forecasting Model, Technical Report: model description and data sources, January 2015

12.14 In short, EEFM uses 'economic migration' to balance the local relationship of jobs to population and housing. Its housing numbers are job-led: they show the numbers of dwellings that would be required to meet housing demand, including the demand resulting from changing job opportunities.

How many jobs?

12.15 The table below shows forecast jobs growth of 1,960 additional jobs over the period 2014-36. It also shows the forecast population with the EEFM expects to fill those jobs.

Table 12.1 WHMA EEFM job growth 2014-36

	Workforce job growth	Population growth
Waveney	3,430	12,652

Source: EEFM

12.16 Once the policy off job prospects have been established, the key question for the SHMA is whether the number of homes suggested by the demographic evidence provides a sufficiently large workforce. Or whether additional new homes (and higher inward migration flows) are needed.

12.17 Because it is an intrinsic part of the model, we compared the EEFM view of population growth with the demographic starting point identified in Section 5. It is clear that overall, the EEFM's population is substantially higher across the client group than the demographic starting point. However, we first consider an alternative forecast before drawing any conclusions on the implications for the number of homes.

Experian forecast

12.18 As a cross-check on the EEFM results we have also considered the latest economic forecasts from Experian (December 2016). The Experian model works differently to EEFM:

- One of the differences is that in its standard, or baseline, version the Experian model assumes population change in line with the latest ONS SNPP (currently ONS 2014). The forecast *resident labour force (labour supply)* for the local authority area is calculated from that population, plus activity rates and commuting.
- Another output of the model is *job demand, (labour demand)* – the number of jobs in the local authority that employers will want to fill. As its name indicates job demand is a demand-side view, unconstrained by local labour supply. Job demand is not shown in the published forecast on Experian's website, but Experian has provided it for this study.

12.19 The forecast also outputs *workplace jobs* (called by Experian 'workforce jobs'), which means the number of jobs located in the area. This number is the lower of the forecast labour demand and forecast labour supply:

- If labour supply is enough to fill the forecast demand, the workforce jobs equals demand.
- If labour supply is too low to meet demand, the number of jobs is the maximum that *can be* filled by the forecast labour supply. In that case, the forecast is saying that job growth in the area will be *supply-constrained*. In other words, to meet demand in full would require net in-migration over and above the official population projection. In line with the PPG, where the projection understates housing need, it should be adjusted upwards.

Experian baseline

12.20 Experian's baseline forecasts (December 2016) are provided at Appendix G . The table overleaf provides an overview of forecast change in terms of the main variables that sit within the Experian model. This shows that over the period, the contribution of the over 65s in the workforce is expected to increase with economic activity rates increasing in the older age groups. This is in contrast to the traditional working age groups declining.

12.21 To see whether the SNPP 2014 population meets the forecast demand for labour, we look at the 'Excess Jobs' in the table. This number, also known as 'unfilled jobs', is the difference between job demand (the jobs that employers will want to fil) and labour supply – the jobs that the projected population can fill. In the WHMA there are no unfilled jobs, suggesting that our preferred demographic forecasts will provide enough or more than enough workers to meet demand.

Table 12.2 WHMA Experian baseline forecast change 2014-36[44]

	Waveney
Labour Force	6.03
Labour Force - 16 to 64	2.35
Labour Force - 65 Plus	3.68
Population - retired	6.04
Population - student	0.12
Population - 16 Plus	8.14
Population - 16 to 64	-3.61
Population - 65 Plus	11.75
Total Population	8.26
Working Age Population	2.11
Economic Activity Rate (%) - 16+	1.58 (53.81 to 55.39)

[44] Unless explicitly stated, the figures in this table are in terms of thousands. Economic activity expressed as a percentage.

	Waveney
Economic Activity Rate (%) - 16 to 64	8.08 (74.60 to 82.68)
Economic Activity Rate (%) - 65 Plus	6.47 (8.29 to 14.76)
Workforce Jobs	4.11
Jobs Demand	4.07
Excess Jobs	-0.04
FTE jobs	2.90
Workplace based employment	3.54
Residence based employment	6.85
Unemployment	-0.81

Source: Experian

12.22 We consider in further detail below the significance of the line identified as 'excess jobs' as a positive figure here indicates potential labour supply constraints and therefore may require an uplift.

12.23 The table below summarises the implications for workforce job growth for each of the client authorities. For reference, the EEFM growth figures are also shown in this table.

Table 12.3 WHMA Experian and EEFM workforce job growth 2014-36

	EEFM job growth	Experian job growth	Difference
Waveney	3,430	4,109	-679

Source: EEFM, Experian

12.24 It is clear that there is some difference in views about the distribution of growth across the client authorities. In Waveney total forecast job growth is quite different in both models. But, there are similarities on a sector-by-sector basis, as shown in the chart below. In the context that forecast job growth is limited relative to the existing stock of jobs, it is similar sectors which are expected to grow by similar amounts.

Figure 12.4 WHMA comparing job growth by sector between EEFM and Experian (2014-36)

Source: Experian & EEFM

Testing the EEFM view of job growth

12.25 While it is not the purpose of the SHMA to identify a preferred economic forecast we have undertaken further testing of the economic forecasts, largely because the two models we have used treat population differently. Thus while in Experian's model, the population grows in line with the SNPP 2014, the EEFM derives population growth from the forecast labour demand.

12.26 Therefore, while the forecast level of job growth in the two forecasts is broadly similar, the population required to fill those jobs by the two models is not. The table below compares the population in the Experian forecast with the population implied by the EEFM. It also shows housing demand (numbers of dwellings). In the case of EEFM this is one of the forecast outputs. Under the Experian heading, as the Experian forecast does not count dwellings, we show the CLG 2014 housing numbers – which are based on the same population, ONS 2014.

Table 12.4 WHMA comparing EEFM and Experian - forecast change between 2014 to 2036

	EEFM			ONS/CLG 2014		
	Population	Households	Dwellings	Population	Households	Dwellings
Waveney	12,652	8,853	9,492	8,271	6,578	7,065

Source: EEFM, Experian

12.27 The two models' views on the way in which jobs will be filled is very different. Leaving aside possible labour supply constraints – which we discuss below - the EEFM shows

much more population growth than SNPP 2014. This is surprising, because according to Experian the SNPP population will be enough to fill a number of new jobs very similar to that predicted by EEFM.

12.28 We have as part of this SHMA and through liaison with Cambridge Econometrics sought to understand the way in which the EEFM works to understand why population growth is forecast to be much higher than the SNPP 2014. In the case of the client group, we think that the EEFM's population is likely to be overstated, primarily because the model does not 'know' enough about the age structure of the client authorities, so is likely to understate economic activity in an ageing population and also as a result of the way in which it derives its non-economic migration components.

12.29 Ideally we might 'take apart' the EEFM, so we can see and correct any issues relating to age structure. Unfortunately, this is not feasible without disproportionate effort. Nevertheless, we would like to test whether our preferred demographic scenarios would provide enough workers to meet the job demand forecast by EEFM. We have asked Experian to provide this test, using their own forecasting model. The result is the 'Experian EEFM scenario', which compares the EEFM labour demand with the supply that our preferred demographic scenario would produce.

12.30 The Experian EEFM scenario is provided in Appendix H, which also sets out an important caveat. Results are summarised in the table below. The 'Experian -EEFM scenario' shows a very similar result to the Experian baseline: In Waveney our preferred demographic scenario provides enough or more than enough labour to meet demand.

Table 12.5 WHMA Experian EEFM scenario forecast change 2014-36 (000s)

	Waveney
Labour Force	4.33
Labour Force - 16 to 64	0.83
Labour Force - 65 Plus	3.50
Population - retired	6.04
Population - student	0.12
Population - 16 Plus	8.14
Population - 16 to 64	-3.61
Population - 65 Plus	11.75
Total Population	8.26
Working Age Population	2.11
Economic Activity Rate (%) - 16+	-0.05 (53.81 to 53.75)
Economic Activity Rate (%) - 16 to 64	5.64 (74.60 to 80.24)
Economic Activity Rate (%) - 65 Plus	6.04 (8.29 to 14.33)
Workforce Jobs	1.96
Jobs Demand	1.92
Excess Jobs	-0.04
FTE jobs	1.32
Workplace based employment	1.38
Residence based employment	5.20
Unemployment	-0.87

Source: Experian/EEFM

12.31 We explore what these mean in the next section when we look at how many homes are needed to accommodate the required workforce.

How many homes?

12.32 Once the policy-off job prospects have been established (in this case, a range), the key question for the SHMA is whether the number of homes suggested by the demographic evidence provides a sufficiently large workforce, or whether additional new homes (and higher inward migration flows) are needed.

12.33 We answer this question working with Experian. The first question is whether the economic forecasts are constrained by a lack of labour in the area. Any economic forecast needs to be realistic and achievable. There are parts of the UK where there is a genuine shortage of labour in the local area and this means that the forecast does not represent the unconstrained economic potential of the area. Increasing the labour available would result in higher job growth because it releases this constraint.

12.34 Because of this risk we asked Experian to confirm what they consider to be the full, unconstrained, demand for new jobs in the district. That is before any possible labour supply constraint has been applied to the forecast. This 'demand for jobs' estimate looks at the economic structure of the district today and applies Experian's views of the sectors future growth potential.

12.35 In this case, Experian have confirmed that the unconstrained demand for labour is identical to that shown in their baseline model. There is no suggestion that a lack of labour is acting as any constraint on the number of jobs.

12.36 Because it is not the role of the SHMA to identify a preferred jobs forecast, we consider both the Experian baseline and the Experian EEFM scenario in looking at whether there are any labour supply constraints in the study area. In both scenarios, there is no evidence of labour supply constraints which means that planning to accommodate population growth in line with the CLG 2014 projection will provide sufficient labour to meet forecast job growth.

Waveney off-shore scenario

12.37 We asked Experian to run a further scenario which drew on work prepared by Suffolk County Council and WDC on the impact of additional off-shore wind farm development on job demand over the period 2014-31. This work informed a separate EEFM scenario which was run on the 2014 version of that model.

12.38 For consistency, we adopted the same assumptions in terms of the additional jobs in individual sectors in Waveney as those used in the 2014 EEFM scenario. The results of the scenario are provided at Appendix J these show that by the end of the plan period, there is no labour supply constraint in Waveney. While there is evidence of some modest constraint in the middle years, it is marginal and has disappeared in advance of 2031.

12.39 We also considered whether Experian should run this scenario as a variant to their Experian EEFM scenario described above. However, we concluded that because the Experian baseline has a more optimistic view of job growth in Waveney than the Experian EEFM, in order to understand whether there might be any labour supply constraints (and therefore increased housing requirements), the Experian baseline represented the most robust scenario against which to establish whether there would be any constraint by the end of the plan period.

12.40 We do not consider there is a need to consider a jobs uplift for Waveney.

Alternative economic activity rates

12.41 The analysis above uses Experian's own locally specific economic activity rates. This is because economic activity rates in a local economy are 'dynamic' and flex in line with market demand. Rates therefore depend on the demand for jobs and the supply of labour. Experian have confirmed that the rates used here are reasonable and sound to use.

12.42 The Experian job number quoted above is only valid providing all the other variables remain as per Experian. This includes the size of the resident population and the economic activity rate applied; should the size of the population increase the demand for jobs may change.

12.43 This also includes their national economic activity rates applied to the national population (of which the study area economy is a part). This is because, should alternative rates be preferred, for example those published by the Office of Budgetary Responsibility (OBR) or EU (which tend to be lower than Experian rates), then this reduces the number of jobs forecast (or projected) at the national and so local level.

Conclusions

12.44 In this section, we have tested the alignment of jobs and housing in the study area against two independent, policy-off economic forecasts. Our testing has shown that Waveney's labour market is not constrained.

12.45 In relation to Waveney, we tested a further scenario to understand whether a jobs-led uplift was necessary to support the planned off-shore windfarm development. We found that jobs associated with the development could be filled by increased economic activity, reduced unemployment, increased in-commuting and greater double jobbing.

13 WAVENEY HMA SETTING THE OAN

Introduction

13.1 The method applied in this report follows that outlined in the Planning Advisory Service Technical Advice Note 'Objectively Assessed Housing Needs and Housing Targets'. This was first published in June 2014 and was updated in July 2015 to reflect emerging best practice.

13.2 It also follows the stages set out in the Planning Guidance to arrive at the 'overall housing needs figure' at paragraph 2a-020.

Demographic starting point

13.3 The most recent official projection (ONS/CLG 2014) imply housing need of 7,065 dwellings in Waveney between 2014 and 2036.

13.4 Following paragraph 2a-015 of the PPG, we have tested a wide range of demographic data prepared by CRG to identify the demographic starting point. This included producing alternative trend-based scenarios based on different periods.

13.5 Paragraph 2a-017 of the PPG states that:

> *'The household projections produced by the Department for Communities and Local Government are statistically robust and are based on nationally consistent assumptions. However, plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections and household formation rates'*

13.6 Through this sensitivity analysis we identified some issues in the longer term trends associated with the one-off effects of the EU accession. We do not believe this will be carried forward in future years so set aside the longer-term alternative projections on the grounds that they will overstate need.

13.7 As part of this testing, we have considered the relationship between the study area and London, including having discussions with the GLA demographers. The current iteration of the London Plan is based on a longer-term migration trend scenario than the official projections. This is a departure from the nationally-consistent official projections which rely on a five-year migration trend (six years for overseas migration). While the longer-term trend may be appropriate for London's assessment of need, as we explain above and in detail in Section 10, we do not believe they are appropriate for the client group. On the basis of the current policy position adopted by London, we do not see the need for any specific London adjustment.

13.8 We also identified UPC as being significant across the study area, including a significant negative number in Waveney, but could not satisfactorily explain the cause of the error. For this reason, and based on the probable causes as identified in ONS' toolkit, we looked at scenarios which both included and excluded UPC. We also looked to incorporate the latest MYE data published in June 2016.

13.9 Our analysis has also confirmed that household formation rates are not suppressed and so would not merit any adjustment.

13.10 Taking account of locally-specific circumstances and having sensitivity tested the official projections, the demographic starting point is 2010-15 five-year trend-based scenario excluding UPC prepared by CRG. This approach of excluding UPC, and therefore adopting a higher demographic starting point, is taken in the spirit of positive planning. This indicates that there is a need for 8,223 net new dwellings in Waveney over the plan period.

Market signals

13.11 Following the PPG, we have looked to see whether there is evidence of market pressure in Waveney which would require a market signals uplift. While there is some evidence of suppressed completions in the trend period, there is no other evidence of constraint in the market signals which would justify an uplift; indeed, it appears that it is local viability issues that have suppressed housing delivery. As such, applying an uplift would not have a positive impact on the supply of housing so none is recommended.

Jobs and homes

13.12 The PPG advises that:

> *'Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems.'*

13.13 To address this paragraph of the PPG, we used two independent and policy-off economic forecasts prepared by Experian and Cambridge Econometrics (EEFM). Both models forecast a similar level of jobs growth across the study period but rely on very different methods: while one is jobs-led, the other is population-led.

13.14 As part of our consideration of future jobs, we have looked critically at both models such that we commissioned Experian to model an alternative view of the EEFM job forecast to better understand how jobs might fill. In both the baseline and EEFM Experian scenarios, taking account of increased economic activity rates, changes to commuting flows and lower unemployment across the period, there was no evidence of labour supply constraints.

13.15 We also looked at a specific scenario to take account of increased jobs growth in the off-shore wind sector in Waveney. We did not identify a need for a future jobs uplift to meet this forecast growth.

Objectively assessed housing need

13.16 In line with national guidance, before they are used as a measure of objectively assessed housing need, the demographic projections may be adjusted in the light of two factors: firstly, future employment and secondly past provision and market signals. (In addition, we have considered an adjustment in response to the GLA projections as part of the demographic analysis, but concluded that this was not appropriate.)

13.17 It is important to understand that these different adjustments overlap. As discussed earlier in this report, the demographic projections carry forward past demographic trends. But, past growth may have been constrained by lack of housing, so that some people who otherwise would have lived in the HMA had to go or remain elsewhere. If that is the case, housing provision should be lifted above the projection, so that in future people in the same position are able to live in the area. If job numbers in the area also rise above past trends, these same people will theoretically be available to fill the additional jobs that are provided.

13.18 The table below sets out the summary assessment for Waveney in terms of the demographic starting point, market signals uplift and future jobs uplift. The last two columns of the table show the OAN. The total for 2014-36 is in the penultimate column and the annual average in the final column.

Table 13.1 Summary assessment for the WHMA

	Dwellings per annum	Total dwellings	Market signals uplift (%)	Market signal uplift (dwellings)	Future jobs uplift (dwellings)	OAN (dwellings)	OAN (dpa)
Waveney	374	8,223	-	-	-	8,223	374

The OAN and affordable housing need

13.19 As noted earlier the purpose of this report is to calculate the objectively assessed housing need (OAN) over the plan period, following the method set out at paragraphs 015-021 of the PPG. As well as the OAN the PPG requires local planning to calculate the need for affordable housing, using the method set out at paragraphs 022-028 of the PPG. The two methods are entirely different, and the results they produce relate to different meanings of the term 'need'. An obvious difference is that the OAN relates to the total number of homes in all tenures, while affordable need of course relates to affordable tenures only. But there are two further differences between the OAN and affordable need:

- The OAN measures realistic expectation of demand – the housing *that is likely to be delivered in practice* if planning provides enough land, based on historical experience plus various adjustments. In contrast, affordable need measures the number of households who would be eligible for affordable housing, if everyone is to enjoy suitable housing as defined by certain standards and taking into account the supply of new units.

- The OAN measures the total number of additional homes to be provided over the plan period. In contrast, affordable need only assesses the additional homes to be provided in affordable tenures, without consideration of other tenures (or that market homes will become available for reuse as their occupants move to affordable housing). If affordable need were met in full, then much of the growth in affordable housing would be matched by reduced need for market housing, as many people would shift from unsuitable market housing to suitable affordable housing.

13.20 Because affordable need is a different kind of need to the OAN, affordable need is not part of the OAN and the OAN is not required to cover it in full, as confirmed by a string of Inspector's decisions and legal judgments. The way that plan-makers should take account of housing need is set out in paragraph 029 of the PPG:

> *'The total affordable housing need should be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.'*

13.21 The assessment of housing need for the study area, and advice on how it should be dealt with in accordance with paragraph 29 of the PPG, are provided in Volume 2 of this SHMA.

Relationship with the Broads Authority

13.22 Because part of the Broads Authority overlaps into Waveney, Waveney's OAN necessarily includes an element of need which could be met within the Broads. We are aware that the Central Norfolk SHMA identifies an OAN, disaggregated into the various local authorities which the Broads covers, for the Broads Authority.

13.23 We do not revisit that work or review the method used to derive the figures as part of this study but can confirm that the Waveney OAN set out above is inclusive of needs in the Waveney part of the Broads Authority.

APPENDIX A HMA CONTAINMENT CALCULATIONS

APPENDIX A
MIGRATION CONTAINMENT

Ipswich

Origin (moves from)	Destination (moves to)			
	Waveney	Elsewhere	Total moves from Waveney	**Origin containment**
Waveney & Great Yarmouth	9,849	5,324	15,173	**64.9%**
Elsewhere	6,068			
Total moves to Waveney	15,917			
Destination containment	**61.9%**			

source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich & Babergh

Origin (moves from)	Destination (moves to)			
	Ipswich & Babergh	Elsewhere	Total moves from Ipswich & Babergh	**Origin containment**
Ipswich & Babergh	15,116	8,159	23,275	**64.9%**
Elsewhere	8,853			
Total moves to Ipswich & Babergh	23,969			
Destination containment	**63.1%**			

source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh & Mid Suffolk

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh & Mid Suffolk	Elsewhere	Total moves from Ipswich, Babergh & Mid Suffolk	**Origin containment**
Ipswich, Babergh & Mid Suffolk	21,397	10,956	32,353	**66.1%**
Elsewhere	11,674			
Total moves to Ipswich, Babergh & Mid Suffolk	33,071			
Destination containment	**64.7%**			

source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk & Suffolk Coastal

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk & Suffolk Coastal	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk & Suffolk Coastal	**Origin containment**
Ipswich, Babergh, Mid Suffolk & Suffolk Coastal	31,628	12,273	43,901	**72.0%**
Elsewhere	13,164			
Total moves to Ipswich, Babergh, Mid Suffolk & Suffolk Coastal	44,792			
Destination containment	**70.6%**			

source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	39,958	15,089	55,047	**72.6%**
Elsewhere	16,319			
Total moves to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	56,277			
Destination containment	**71.0%**			

source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	37,024	18,444	55,468	**66.7%**
Elsewhere	17,149			
Total moves to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	54,173			
Destination containment	**68.3%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree & Colchester

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree & Colchester	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree & Colchester	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree & Colchester	53,683	23,806	77,489	**69.3%**
Elsewhere	22,273			
Total moves to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Braintree & Colchester	75,956			
Destination containment	**70.7%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney & Great Yarmouth

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney & Great Yarmouth	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney & Great Yarmouth	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney & Great Yarmouth	48,499	17,186	65,685	**73.8%**
Elsewhere	18,212			
Total moves to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney & Great Yarmouth	66,711			
Destination containment	**72.7%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth & Braintree

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth & Braintree	Elsewhere	Total moves from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth & Braintree	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth & Braintree	56,985	22,010	78,995	**72.1%**
Elsewhere	23,440			
Total moves to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth & Braintree	80,425			
Destination containment	**70.9%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Ipswich, Babergh, Braintree & Colchester

Origin (moves from)	Destination (moves to)			
	Ipswich, Babergh, Braintree & Colchester	Elsewhere	Total moves from Ipswich, Babergh, Braintree & Colchester	**Origin containment**
Ipswich, Babergh, Braintree & Colchester	34,249	20,067	54,316	**63.1%**
Elsewhere	18,731			
Total moves to Ipswich, Babergh, Braintree & Colchester	52,980			
Destination containment	**64.6%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Waveney & Great Yarmouth

Origin (moves from)	Destination (moves to)			
	Waveney & Great Yarmouth	Elsewhere	Total moves from Waveney & Great Yarmouth	**Origin containment**
Waveney & Great Yarmouth	16,012	5,772	21,784	**73.5%**
Elsewhere	5,907			
Total moves to Waveney & Great Yarmouth	21,919			
Destination containment	**73.1%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Waveney

Origin (moves from)	Destination (moves to)			
	Waveney	Elsewhere	Total moves from Waveney	**Origin containment**
Waveney	7,597	3,549	11,146	**68.2%**
Elsewhere	3,888			
Total moves to Waveney	11,485			
Destination containment	**66.1%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

APPENDIX A
MIGRATION CONTAINMENT

Waveney, Great Yarmouth & South Norfolk

Origin (moves from)	Destination (moves to)			
	Waveney, Great Yarmouth & South Norfolk	Elsewhere	Total moves from Waveney, Great Yarmouth & South Norfolk	**Origin containment**
Waveney, Great Yarmouth & South Norfolk	22,472	10,164	32,636	**68.9%**
Elsewhere	11,110			
Total moves to Waveney, Great Yarmouth & South Norfolk	33,582			
Destination containment	**66.9%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

Waveney, Great Yarmouth, South Norfolk & Mid Suffolk

Origin (moves from)	Destination (moves to)			
	Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	Elsewhere	Total moves from Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	**Origin containment**
Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	26,092	14,160	40,252	**64.8%**
Elsewhere	15,130			
Total moves to Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	41,222			
Destination containment	**63.3%**			

Source: ONS, Census MM01CUK_ALL - Origin and destination of migrants by age (broad grouped) by sex

APPENDIX A
COMMUTING CONTAINMENT

Ipswich & Babergh

Origin (trips from)	Destination (trips to)			
	Ipswich & Babergh	Elsewhere	Total trips from Ipswich & Babergh	**Origin containment**
Ipswich & Babergh	77,520	30,653	108,173	**71.7%**
Elsewhere	30,499			
Total trips to Ipswich & Babergh	108,019			
Destination containment	**71.8%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich & Babergh, Mid Suffolk

Origin (trips from)	Destination (trips to)			
	Ipswich & Babergh, Mid Suffolk	Elsewhere	Total trips from Ipswich & Babergh, Mid Suffolk	**Origin containment**
Ipswich & Babergh & Mid Suffolk	117,540	42,260	159,800	**73.6%**
Elsewhere	36,906			
Total trips to Ipswich & Babergh, Mid Suffolk	154,446			
Destination containment	**76.1%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal, Waveney, Great Yarmouth, Braintree

Origin (trips from)	Destination (trips to)			
	All authorities	Elsewhere	Total trips from all authorities	**Origin containment**
All authorities	306,147	76,153	382,300	**80.1%**
Elsewhere	42,560			
Total trips to all authorities	348,707			
Destination containment	**87.8%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal

Origin (trips from)	Destination (trips to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal	Elsewhere	Total trips from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal	181,583	36,906	218,489	**83.1%**
Elsewhere	23,452			
Total trips to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal	205,035			
Destination containment	**88.6%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney

Origin (trips from)	Destination (trips to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	Elsewhere	Total trips from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	222,008	45,249	267,257	**83.1%**
Elsewhere	28,392			
Total trips to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Waveney	250,400			
Destination containment	**88.7%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree

Origin (trips from)	Destination (trips to)			
	Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	Elsewhere	Total trips from Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	**Origin containment**
Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	227,330	65,581	292,911	**77.6%**
Elsewhere	35,752			
Total trips to Ipswich, Babergh, Mid Suffolk, Suffolk Coastal & Braintree	263,082			
Destination containment	**86.4%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Waveney

Origin (trips from)	Destination (trips to)			
	Waveney	Elsewhere	Total trips from Waveney	**Origin containment**
Waveney	37,001	11,767	48,768	**75.9%**
Elsewhere	8,364			
Total trips to Waveney	45,365			
Destination containment	**81.6%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Waveney & Great Yarmouth

Origin (trips from)	Destination (trips to)			
	Waveney & Great Yarmouth	Elsewhere	Total trips from Waveney & Great Yarmouth	**Origin containment**
Waveney & Great Yarmouth	74,916	14,473	89,389	**83.8%**
Elsewhere	10,709			
Total trips to Waveney & Great Yarmouth	85,625			
Destination containment	**87.5%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Waveney, Great Yarmouth & South Norfolk

Origin (trips from)	Destination (trips to)			
	Waveney, Great Yarmouth & South Norfolk	Elsewhere	Total trips from Waveney, Great Yarmouth & South Norfolk	**Origin containment**
Waveney, Great Yarmouth & South Norfolk	101,418	37,186	138,604	**73.2%**
Elsewhere	27,746			
Total trips to Waveney, Great Yarmouth & South Norfolk	129,164			
Destination containment	**78.5%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Waveney, Great Yarmouth, South Norfolk & Mid Suffolk

Origin (trips from)	Destination (trips to)			
	Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	Elsewhere	Total trips from Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	**Origin containment**
Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	133,493	53,951	187,444	**71.2%**
Elsewhere	37,740			
Total trips to Waveney, Great Yarmouth, South Norfolk & Mid Suffolk	171,233			
Destination containment	**78.0%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh & Braintree

Origin (trips from)	Destination (trips to)			
	Ipswich, Babergh & Braintree	Elsewhere	Total trips from Ipswich, Babergh & Braintree	**Origin containment**
Ipswich, Babergh & Braintree	122,933	59,662	182,595	**67.3%**
Elsewhere	43,133			
Total trips to Ipswich, Babergh & Braintree	166,066			
Destination containment	**74.0%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

Ipswich, Babergh, Braintree & Chelmsford

Origin (trips from)	Destination (trips to)			
	Ipswich, Babergh, Braintree & Chelmsford	Elsewhere	Total trips from Ipswich, Babergh, Braintree & Chelmsford	**Origin containment**
Ipswich, Babergh, Braintree & Chelmsford	192,704	75,717	268,421	**71.8%**
Elsewhere	57,623			
Total trips to Ipswich, Babergh, Braintree & Chelmsford	250,327			
Destination containment	**77.0%**			

Source: ONS, Census WU01UK - Location of usual residence and place of work by sex (2011)

APPENDIX B TESTING THE HRRS

Suffolk: Household Representative Rates

24 October 2016

John Hollis

Background

This note examines data on household representative rates (HRRs) for the districts of Babergh, Ipswich, Mid Suffolk, Suffolk Coastal and Waveney. The data come from the CLG 2014 household projections[1]. Comparison using Stage 1 rates by gender, five-year age groups and relationship status are made between the district and overall rates for England at 2036.

A key intervening variable is the proportion of the population (by gender and age) who are living in couples. This is also described. All data relate to the private household population.

The following abbreviations are used in the Figures:

MC	- male living in a couple		
MPM	- male previously married	FPM	- female previously married
MS	- single male	FS	- single female

Females living in a couple do not - by convention – represent their households in the CLG projections.

The national HRRs and proportions married – the bases for the local authority ratios shown in the following sections – are presented in the Appendix.

Equivalent data for 2014 are available. They show the same basic patterns as do the 2036 data.

[1] CLG Household Projections are © Crown Copyright

Babergh

Figure 1: Babergh: 2036 Household Representative Rates as proportion of England Rates: Males

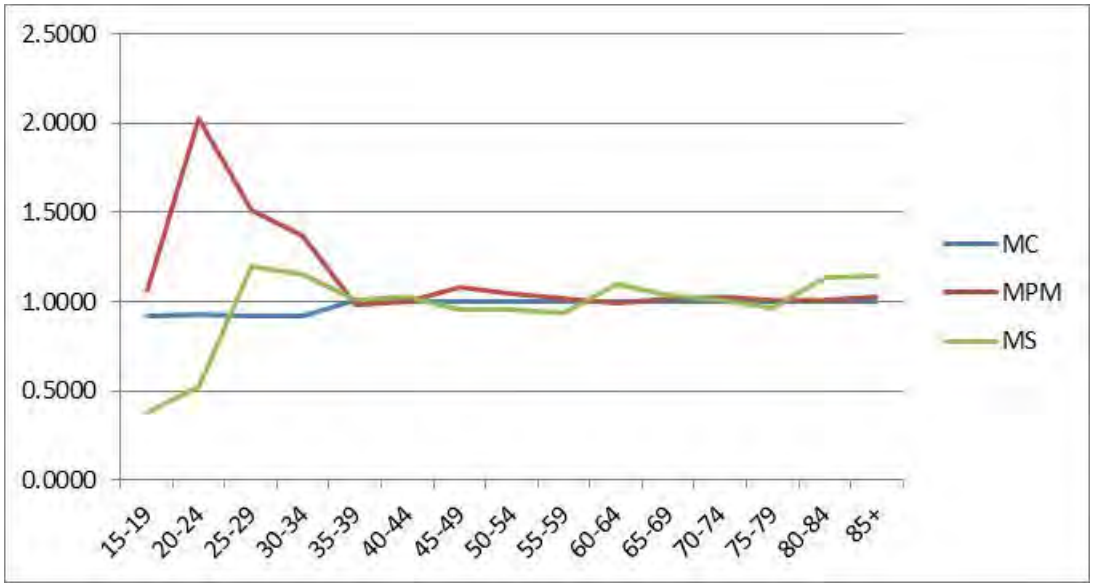


Figure 2: Babergh: 2036 Household Representative Rates as proportion of England Rates: Females

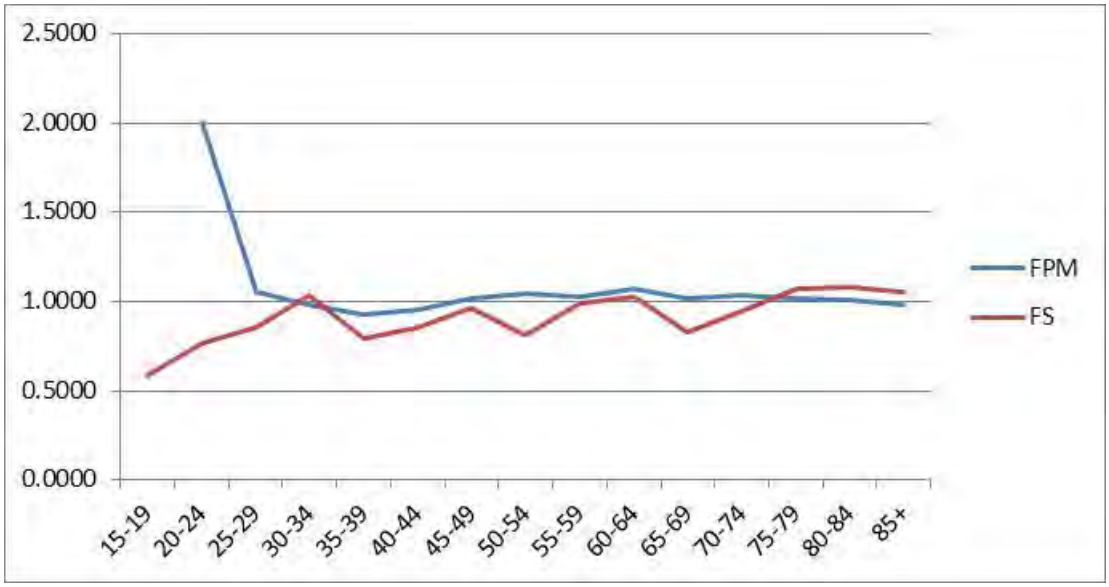
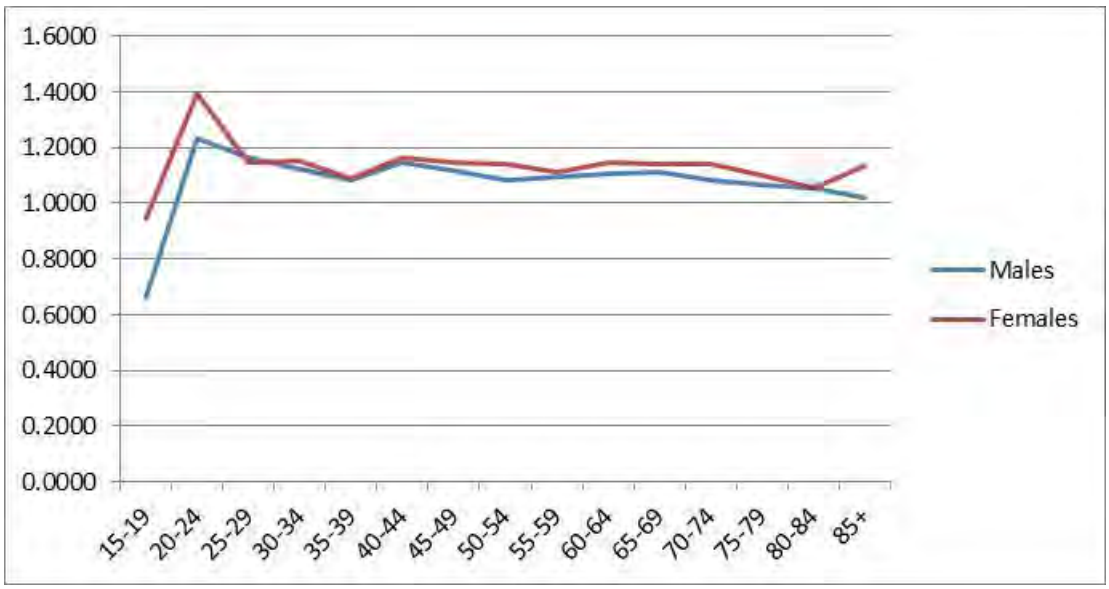


Figure 3: Babergh: 2036 Ratios of proportions in couples, by age and gender, as compared to England levels



HRRS are overall higher than – or very close to - England levels with the exceptions of relatively low rates for both male and female singles aged 15-24. Ratios at young ages are less reliable due to the low populations in Babergh. The proportions living in couples are mainly at or above national levels with the exception of males aged 15-19.

Ipswich

Figure 4: Ipswich: 2036 Household Representative Rates as proportion of England Rates: Males

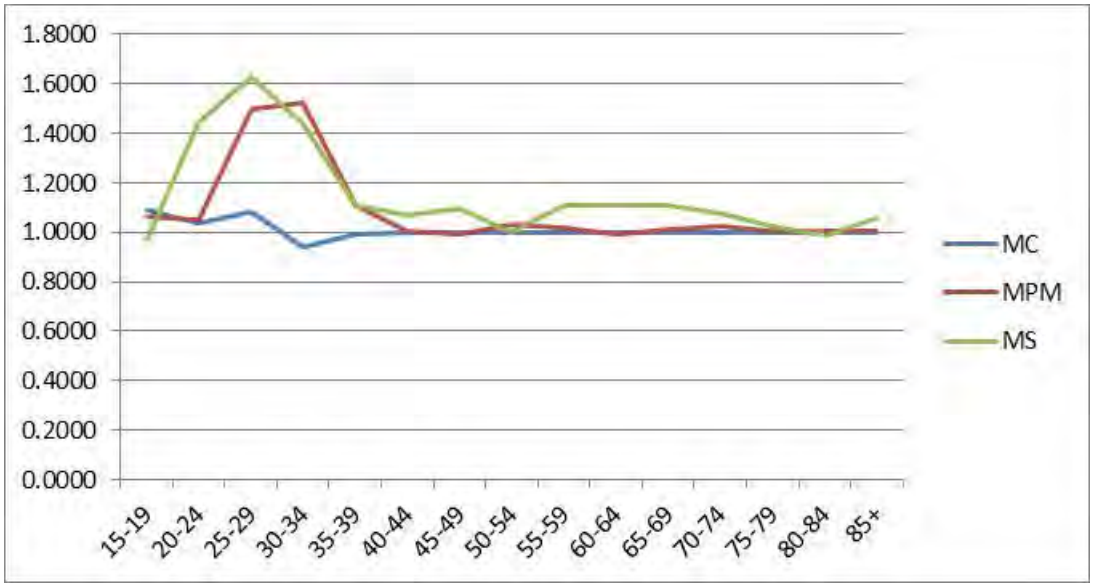


Figure 5: Ipswich: 2036 Household Representative Rates as proportion of England Rates: Females

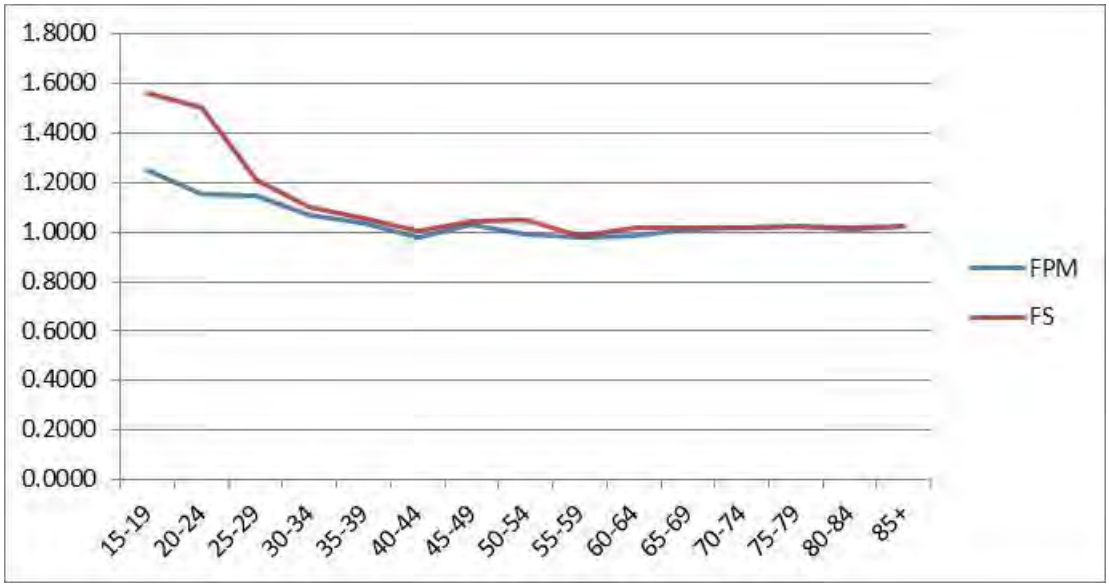
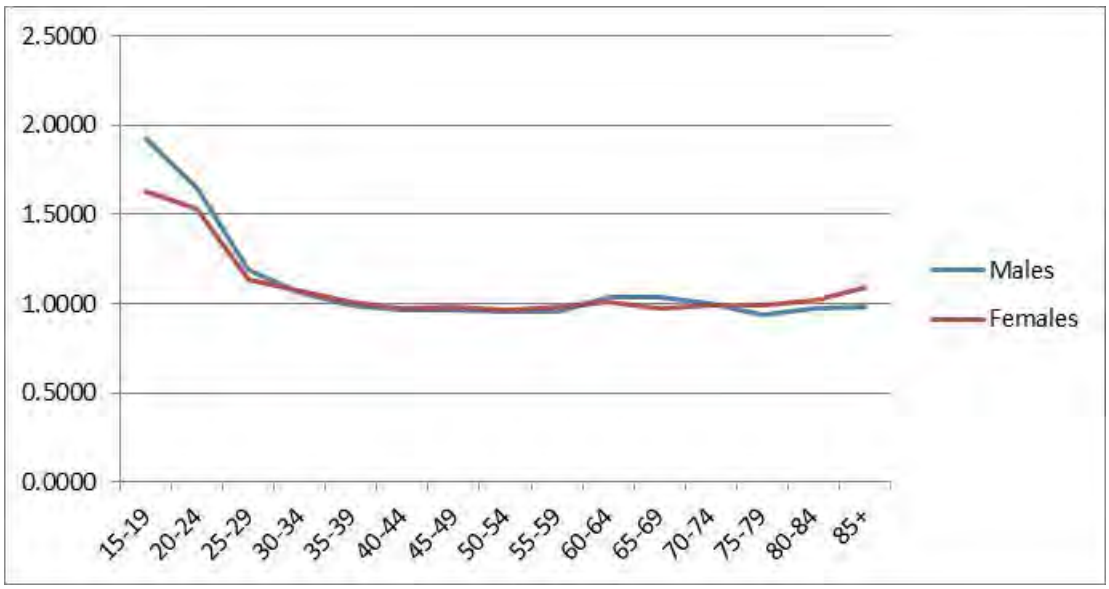


Figure 6: Ipswich: 2036 Ratios of proportions in couples, by age and gender, as compared to England levels



HRRS are invariably at or higher than England levels at all ages. The proportions living in couples are equivalent to national levels with the exceptions of males and females aged 15-24 where being part of a couple is much more likely in Ipswich.

Mid Suffolk

Figure 7: Mid Suffolk: 2036 Household Representative Rates as proportion of England Rates: Males

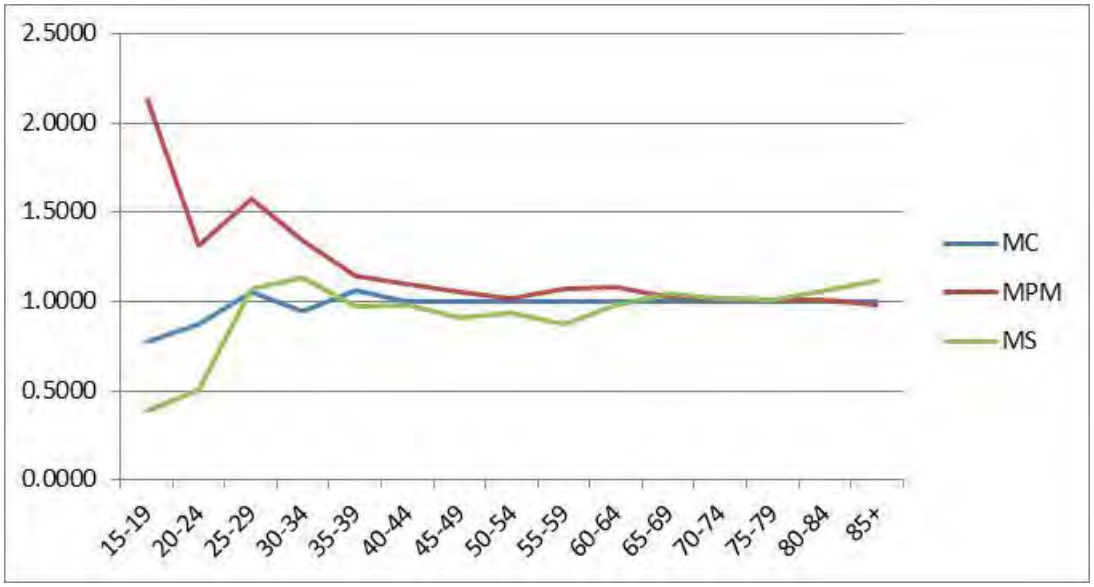


Figure 8: Mid Suffolk: 2036 Household Representative Rates as proportion of England Rates: Females

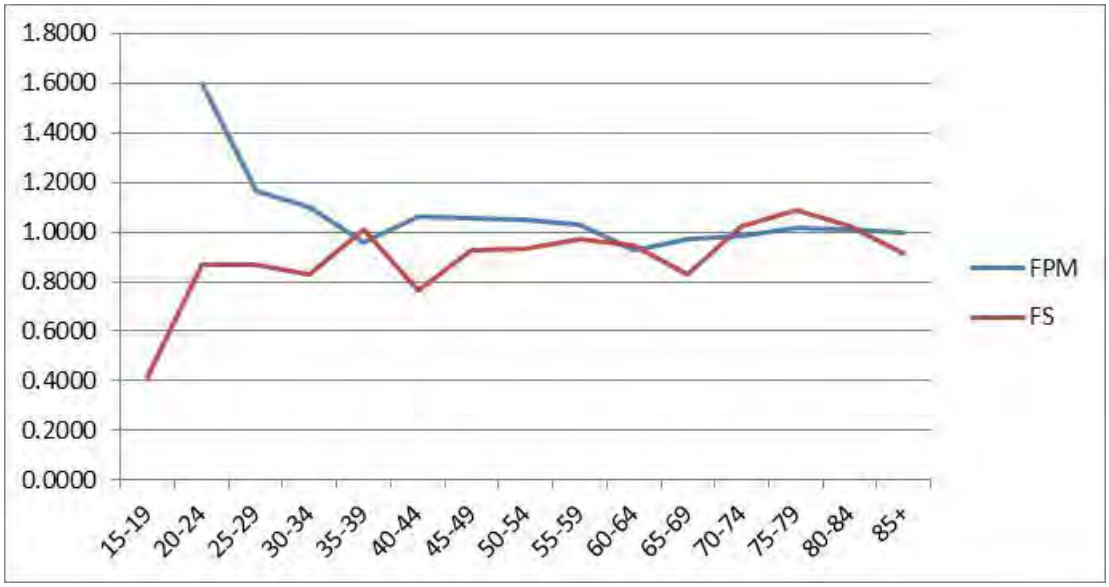
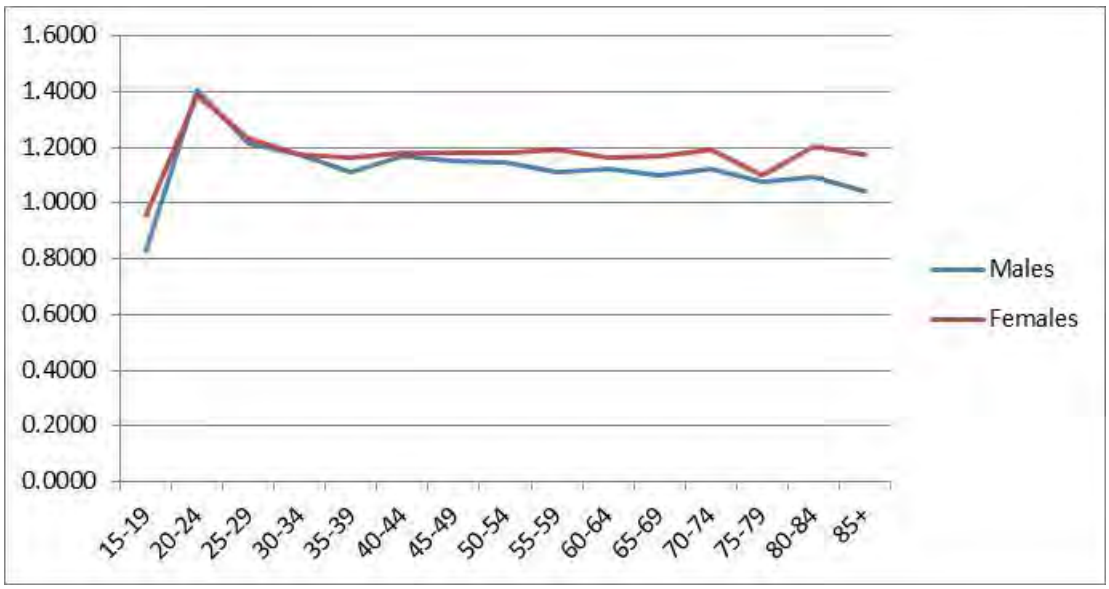


Figure 9: Mid Suffolk: 2036 Ratios of proportions in couples, by age and gender, as compared to England levels



HRRS are invariably at or higher than England levels at all ages with the exceptions of relatively low rates for male singles aged 15-24 and female singles aged 15-29. The proportions living in couples are generally much higher than national levels with the main exception being males aged 15-19.

Suffolk Coastal

Figure 10: Suffolk Coastal: 2036 Household Representative Rates as proportion of England Rates: Males

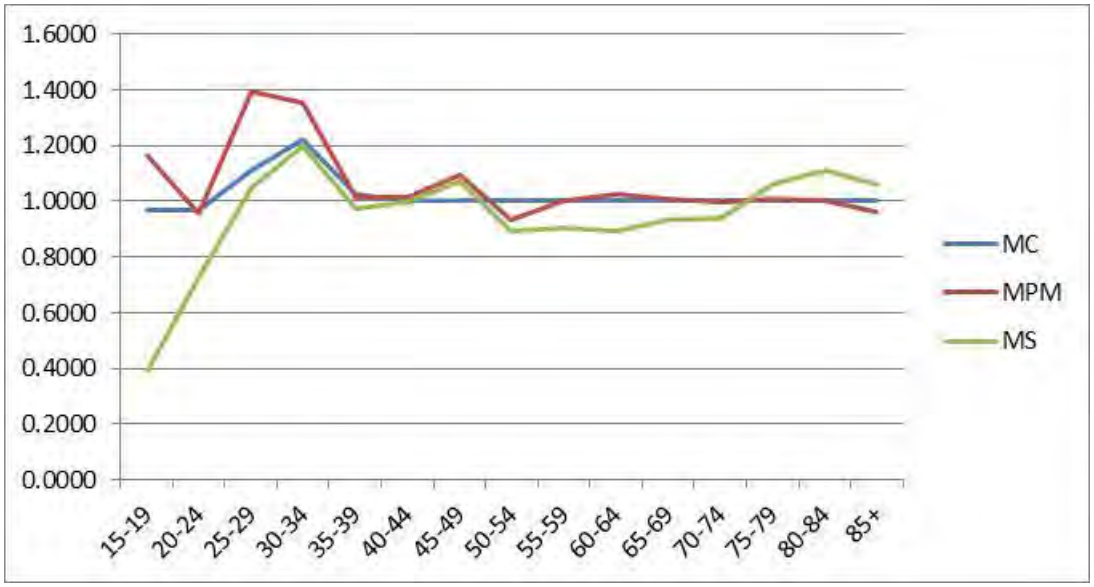


Figure 11: Suffolk Coastal: 2036 Household Representative Rates as proportion of England Rates: Females

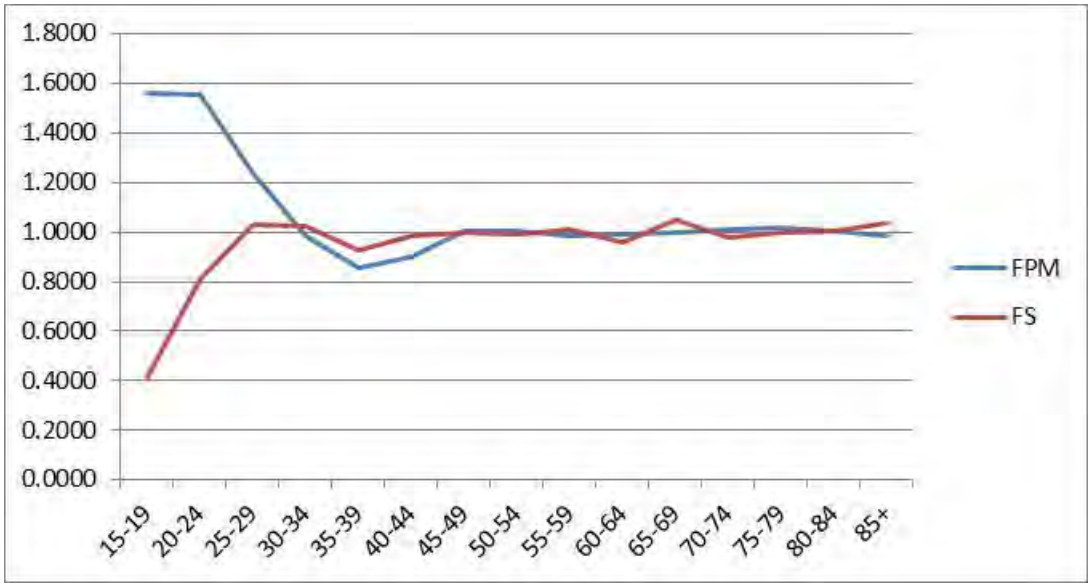
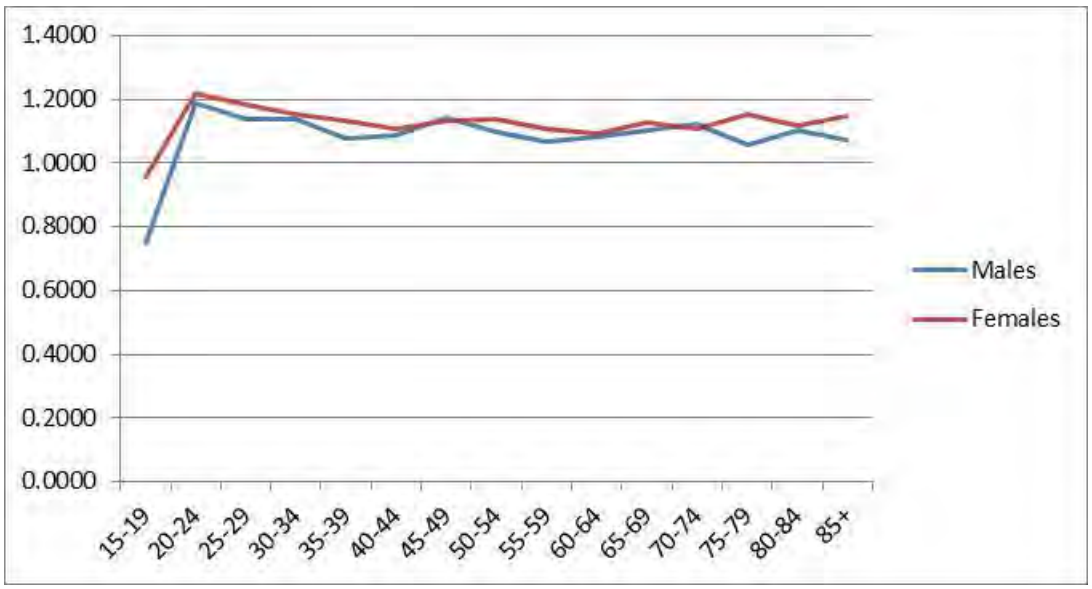


Figure 12: Suffolk Coastal: 2036 Ratios of proportions in couples, by age and gender, as compared to England levels



HRRS are overall higher than – or very close to - England levels with the exceptions of relatively low rates for both male and female singles aged 15-24. Ratios at young ages are less reliable due to the low populations in Suffolk Coastal. The proportions living in couples are generally well above national levels with the exception of males aged 15-19.

Waveney

Figure 13: Waveney: 2036 Household Representative Rates as proportion of England Rates: Males

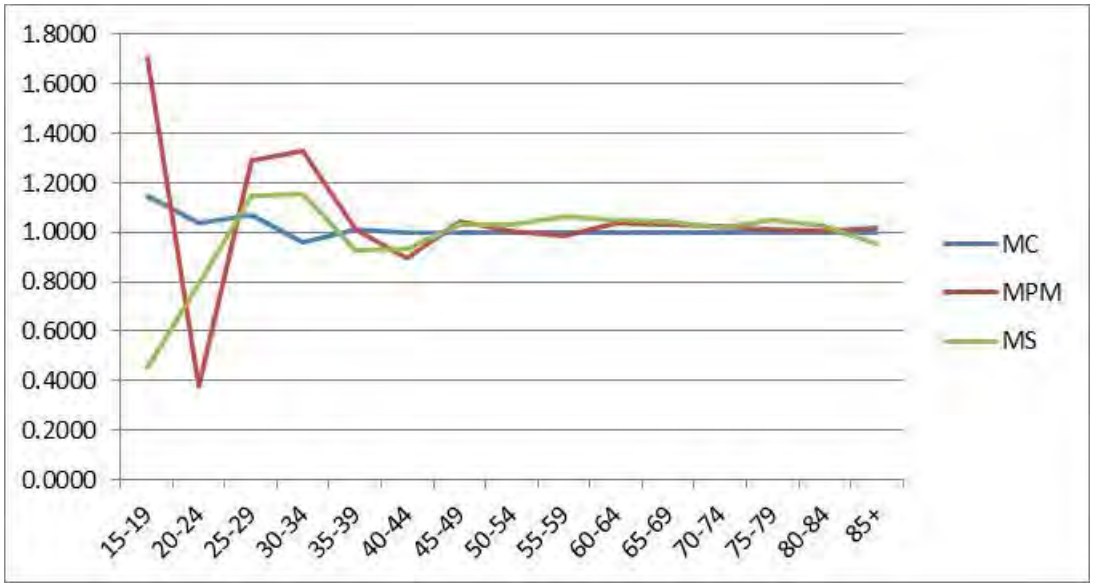


Figure 14: Waveney: 2036 Household Representative Rates as proportion of England Rates: Females

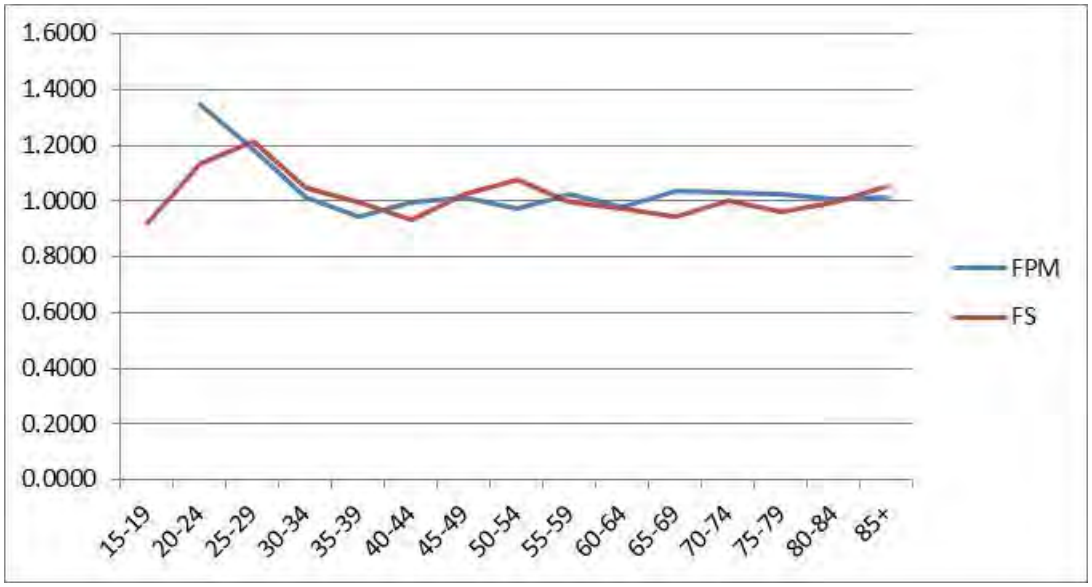
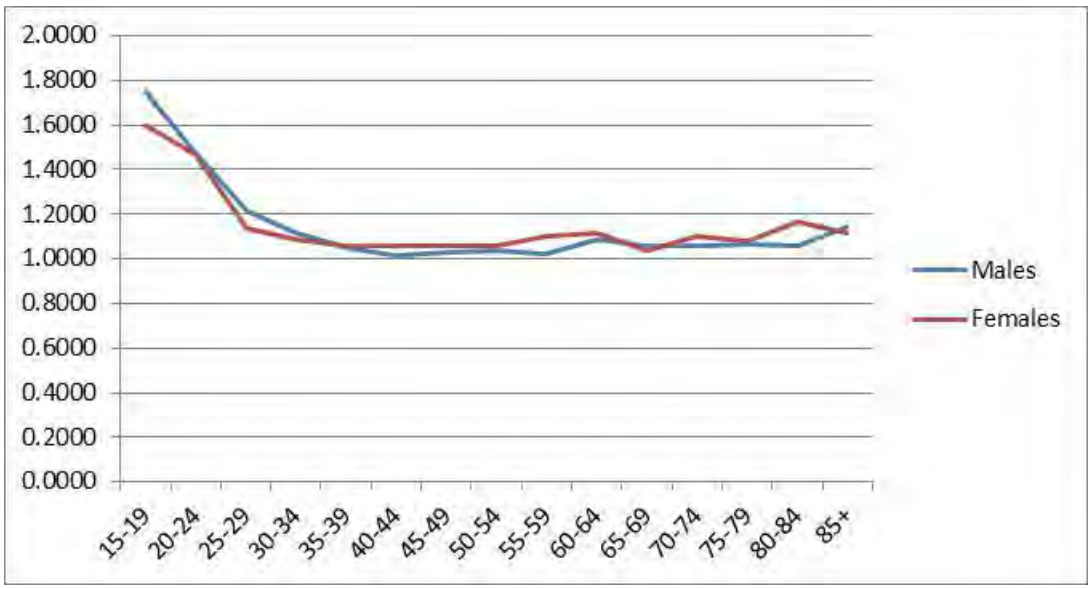


Figure 15: Waveney: 2036 Ratios of proportions in couples, by age and gender, as compared to England levels



HRRS are generally at England levels with the exceptions of variable rates for males not in couples at young ages. Ratios are less reliable for these groups due to the low populations in Waveney. The proportions living in couples are generally at national levels with the exception of very high rates for males and females aged 15-24.

Conclusions

HRRs in the five districts are generally at or above the equivalent rates for England as a whole. Some ratios at younger ages are less reliable due to low populations at risk in the smaller districts. The main groups in the districts that show relatively low rates of household representation are younger singles aged 15-19 and in some districts also those aged 20- 24. Ipswich is an exception to this phenomenon.

In all districts people at most ages are at least as likely as the overall population of England to be living in a couple. There are some minor exceptions at the youngest age group for males. High levels of living in couples are a feature of rural and less urban areas. The lower levels in urban areas tend to reduce the national averages.

In general the Suffolk districts show no severe problems of relative levels of access to housing, although young singles in most districts tend to have lower HRRs than England as a whole.

Appendix: England HRRs and Proportions Married in 2036

Figure A1: England: 2036 HRRs for Males by Age and Relationship

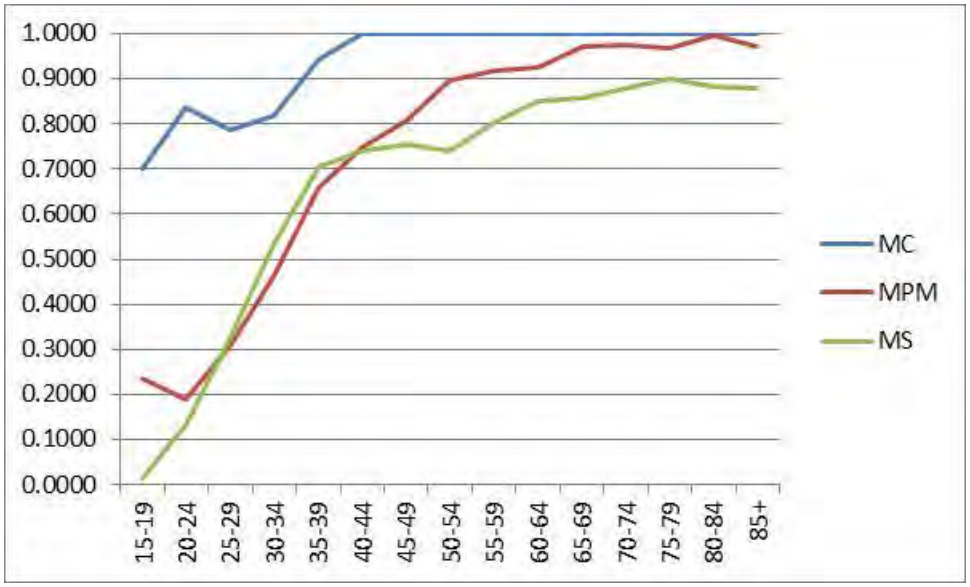


Figure A2: England: 2036 HRRs for Females by Age and Relationship

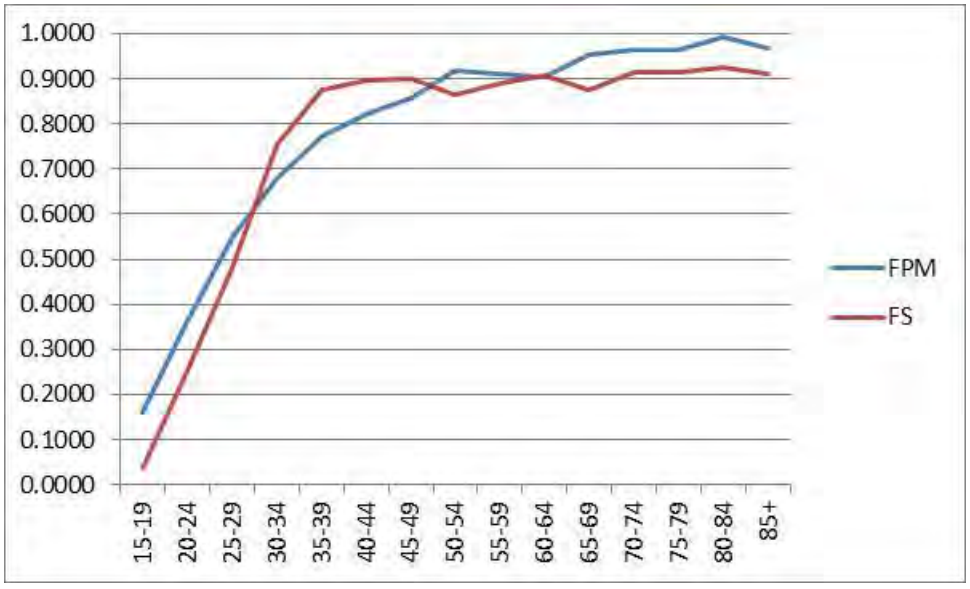
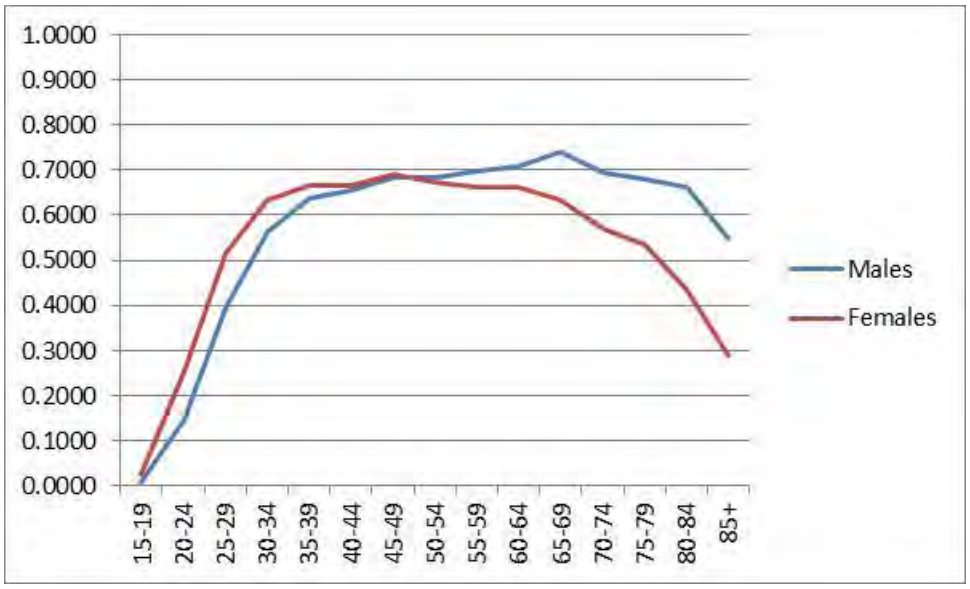


Figure A3: England: 2036 Proportions Married by Gender and Age



These three figures show the national basis against which the local authority ratios have been measured.

Figures A1 and A2 show that within all relationships HRRs generally rise with age, reaching near saturation (taken as greater than 0.9) for males in couples by the late 30s, formerly married males and females by the early 50s and single females by the early 60s. In their 30s and 40s single females are more likely to represent a household than are previously married women. The rates for single males barely reach saturation in the late 70s.

Figure A3 shows that the proportion living in couples rises steeply to reach over 0.6 for females in their early 30s and for males in their late 30s. The levels stay over 0.6 until the early 80s for males and the late 60s for females. The variations at higher ages are due mainly to higher male mortality and hence more females becoming widowed or unpartnered at relatively younger ages.

APPENDIX C WHAT IS UPC?

C.1 What is UPC?

Unattributable Population Change (UPC) is a discrepancy in the official population statistics that arose between 2001 and 2011 Censuses. In this inter-censual period the ONS makes estimates of the components of population change, which are published as MYEs. Births and deaths are measured easily and accurately, because the UK has an efficient registration system. But migration (UK and overseas) cannot be measured directly, and is estimated from indirect and incomplete data such as GP registrations.

When the 2011 Census results came to light, the population in many places was different from what had previously been estimated. ONS accordingly revised the MYEs for the inter-censual period to bring them into line with the Census. But for many places it proved impossible to fully reconcile the revised components of change with population numbers at the two Censuses. To deal with this remaining discrepancy, ONS introduced an additional component of change, in effect an 'errors and omissions' factor. This is the UPC.

The UPC may be due to miscounted population in one or both Censuses. It may also be due to unrecorded or misreported migration between the Censuses. UPC, therefore, is at least partly a correction for failings in the combination of measuring and assigning overseas migrants at the local authority level.

UPC as a statistic ceased in 2011; because it was used as a 'balance' to align estimated population data with the Census. But for projections we still need to consider it because UPC is evident in the ONS base period and also in any longer trend projections (where pre 2011 data is used). Depending on local evidence we either include, or exclude the UPC population from the projections.

The reason UPC is so important here is because the ONS exclude UPC in their population projections. But if we assume the UPC is misreported migration, which will repeat in the future, then we may need to make a positive adjustment to the official projections to ensure everyone is suitably housed.

APPENDIX D DEMOGRAPHIC SUMMARY

D.1 Babergh demographic scenarios summary

	ONS/CLG 2014	CRG14	CRG14X	CRG5	CRG5x
Population (thousands)					
2001	83.5	83.5	83.5	83.5	83.5
2011	87.9	87.9	87.9	87.9	87.9
2014	88.8	88.8	88.8	88.8	88.8
2021	91.1	92.8	92.4	91.8	91.6
2031	95.0	98.7	97.8	96.6	96.1
2036	96.9	101.2	100.1	98.7	98.2
2001-11	4.4	4.4	4.4	4.4	4.4
2014-36	8.086	12.4	11.3	9.8	9.3
p.a.	368	562	513	447	424
Households (thousands)					
2001	35.0	35.0	35.0	35.0	35.0
2011	37.6	37.6	37.6	37.6	37.6
2014	38.5	38.5	38.5	38.5	38.5
2021	40.6	40.9	40.8	40.7	40.7
2031	43.4	44.1	43.9	43.7	43.7
2036	44.6	45.4	45.2	45.0	44.9
2001-11	2.6	2.6	2.6	2.6	2.6
2014-36	6.1	7.0	6.7	6.5	6.4
p.a.	277	316	305	297	293
Homes[45]					
2014-36 (thousands)	6.3	7.2	7.0	6.8	6.7
p.a.	289	329	317	309	304

[45] Occupancy rate 96.1% based on 2011 Census KS401

D.2 Ipswich demographic scenarios summary

	ONS/CLG 2014	CRG14	CRG14X	CRG5	CRG5x
Population (thousands)					
2001	117.2	117.2	117.2	117.2	117.2
2011	133.7	133.7	133.7	133.7	133.7
2014	135.0	135.0	135.0	135.0	135.0
2021	139.9	143.8	141.5	140.6	139.9
2031	145.6	155.0	150.0	147.8	146.2
2036	148.3	159.7	153.8	151.0	149.2
2001-11	16.573	16.6	16.6	16.6	16.6
2014-36	13.294	24.8	18.8	16.0	14.2
p.a.	604.260	1,125	855	729	646
Households (thousands)					
2001	49.853	49.9	49.9	49.9	49.9
2011	57.455	57.5	57.5	57.5	57.5
2014	58.469	58.5	58.5	58.5	58.5
2021	61.456	63.1	62.2	61.7	61.5
2031	65.253	69.3	67.3	66.3	65.7
2036	67.156	72.2	69.7	68.5	67.7
2001-11	7.602	7.6	7.6	7.6	7.6
2014-36	8.687	13.7	11.2	10.0	9.2
p.a.	395	625	511	455	419
Homes[46]					
2014-36 (thousands)	9.0	14.3	11.7	10.4	9.6
p.a.	410	648	530	472	435

[46] Occupancy rate 96.4% based on 2011 Census KS401

D.3 Mid Suffolk demographic scenarios summary

	ONS/CLG 2014	CRG14	CRG14X	CRG5	CRG5x
Population (thousands)					
2001	87.0	87.0	87.0	87.0	87.0
2011	97.1	97.1	97.1	97.1	97.1
2014	99.1	99.1	99.1	99.1	99.1
2021	103.7	105.1	104.6	103.7	103.4
2031	109.7	113.1	112.1	109.9	109.3
2036	112.2	116.2	115.0	112.4	111.8
2001-11	10.1	10.1	10.1	10.1	10.1
2014-36	13.053	17.1	15.9	13.3	12.6
p.a.	593	776	724	606	574
Households (thousands)					
2001	35.5	35.5	35.5	35.5	35.5
2011	40.5	40.5	40.5	40.5	40.5
2014	41.9	41.9	41.9	41.9	41.9
2021	45.1	45.5	45.5	45.0	45.0
2031	49.1	50.0	50.1	49.0	49.0
2036	50.8	51.9	52.0	50.6	50.6
2001-11	5.0	5.0	5.0	5.0	5.0
2014-36	8.8	10.0	10.1	8.7	8.7
p.a.	401	453	457	395	394
Homes[47]					
2014-36 (thousands)	9.2	10.4	10.5	9.0	9.0
p.a.	417	472	475	411	410

[47] Occupancy rate 96.1% based on 2011 Census KS401

D.4 Suffolk Coastal demographic scenarios summary

	ONS/CLG 2014	CRG14	CRG14X	CRG5	CRG5x
Population (thousands)					
2001	115.2	115.2	115.2	115.2	115.2
2011	124.6	124.6	124.6	124.6	124.6
2014	124.8	124.8	124.8	124.8	124.8
2021	126.7	130.5	130.8	126.9	126.8
2031	130.9	139.8	140.4	131.3	131.1
2036	133.0	143.7	144.5	133.4	133.2
2001-11	9.4	9.4	9.4	9.4	9.4
2014-36	8.259	18.9	19.7	8.7	8.5
p.a.	375	860	895	393	385
Households (thousands)					
2001	49.1	49.1	49.1	49.1	49.1
2011	53.7	53.7	53.7	53.7	53.7
2014	54.6	54.6	54.6	54.6	54.6
2021	57.1	58.4	58.7	57.0	57.1
2031	61.0	64.2	64.8	61.0	61.1
2036	62.7	66.6	67.4	62.6	62.8
2001-11	4.6	4.6	4.6	4.6	4.6
2014-36	8.1	12.1	12.8	8.1	8.3
p.a.	370	548	584	367	376
Homes[48]					
2014-36 (thousands)	8.9	13.2	14.0	8.8	9.0
p.a.	403	598	636	400	409

[48] Occupancy rate 91.7% based on 2011 Census KS401

D.5 Waveney demographic scenarios summary

	ONS/CLG 2014	CRG14	CRG14X	CRG5	CRG5x
Population (thousands)					
2001	112.5	112.5	112.5	112.5	112.5
2011	115.4	115.4	115.4	115.4	115.4
2014	115.9	115.9	115.9	115.9	115.9
2021	118.1	120.4	121.3	118.6	118.9
2031	122.2	127.9	130.0	123.6	124.1
2036	124.2	131.3	133.7	125.9	126.6
2001-11	2.9	2.9	2.9	2.9	2.9
2014-36	8.271	15.4	17.8	10.0	10.6
p.a.	376	699	810	454	484
Households (thousands)					
2001	48.6	48.6	48.6	48.6	48.6
2011	50.9	50.9	50.9	50.9	50.9
2014	51.4	51.4	51.4	51.4	51.4
2021	53.4	54.4	54.7	53.6	53.7
2031	56.4	59.1	60.0	57.0	57.3
2036	58.0	61.3	62.4	58.7	59.0
2001-11	2.4	2.4	2.4	2.4	2.4
2014-36	6.6	9.9	11.0	7.3	7.7
p.a.	299	449	501	333	348
Homes[49]					
2014-36 (thousands)	7.1	10.6	11.8	7.9	8.2
p.a.	321	482	538	357	374

[49] Occupancy rate 93.1% based on 2011 Census KS401

APPENDIX E LONDON

E.1 Introduction

When developing FALP (Further Alternations to the London Plan), the Greater London Authority (GLA) chose to depart from the official population projections, because they considered that they were unduly influenced by the recession and did not reflect a full economic cycle. The GLA therefore prefers a projection based on a longer historical period, which it considers more representative of underlying trends. The evidence base for the next review of the London plan, which is currently under way, is based on a similar approach.

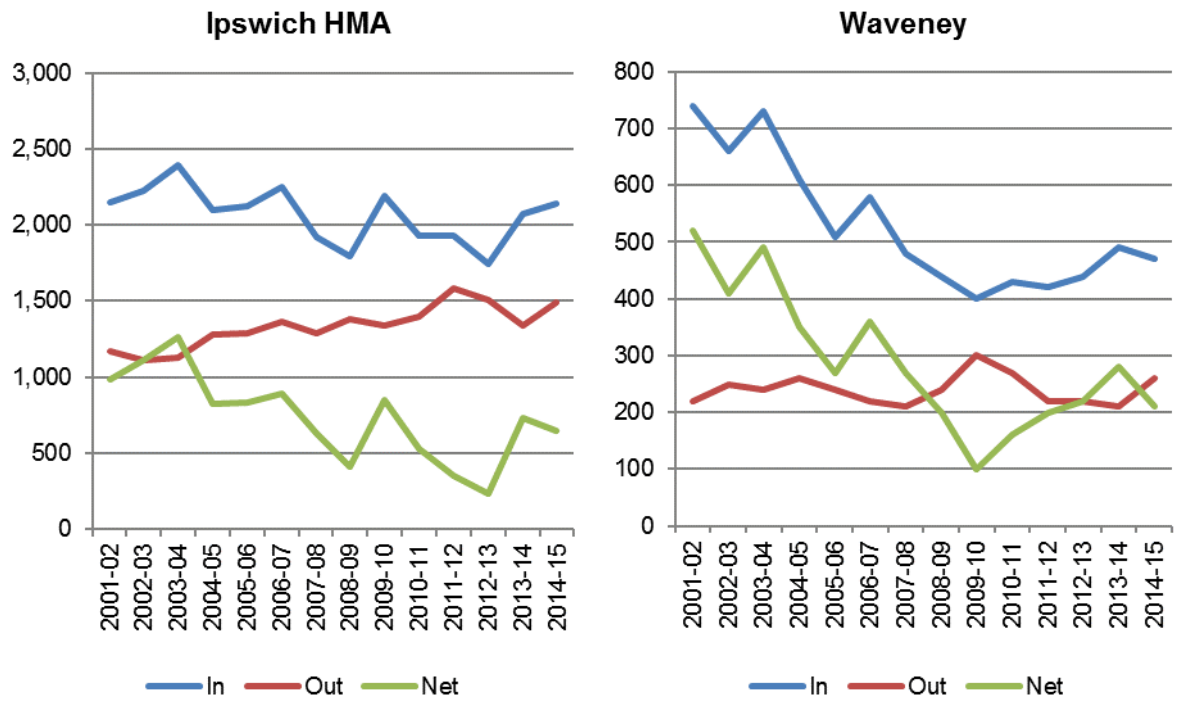
In this note we consider the implications for the client authorities of the GLA's projection method. This analysis may have important policy implications, because if the London Plan and Local Plans in the study area are based on different demographic starting point they could take mutually inconsistent views on future migration flows between London and the client authorities.

E.2 Migration between Suffolk and London

The charts below show annual migration between the client authorities and London. Like any migration flow, it has fluctuated from year to year, but it is clear that the net migration flows from London to Suffolk have declined between 2001 and 2015. There has in recent years been some degree of recovery; however, net migration flows remain some way off their historic levels.

But net migration was falling before the recession. This point is relevant because it does suggest that migration flows between London and Suffolk have been influenced by factors beyond the recession so lower levels of net migration from London to Suffolk cannot necessarily be attributed to the recession. The converse of this is that it cannot be assumed that there will be a return to the levels in the early 2000s as a consequence of improved economic performance. This informs the base period adopted.

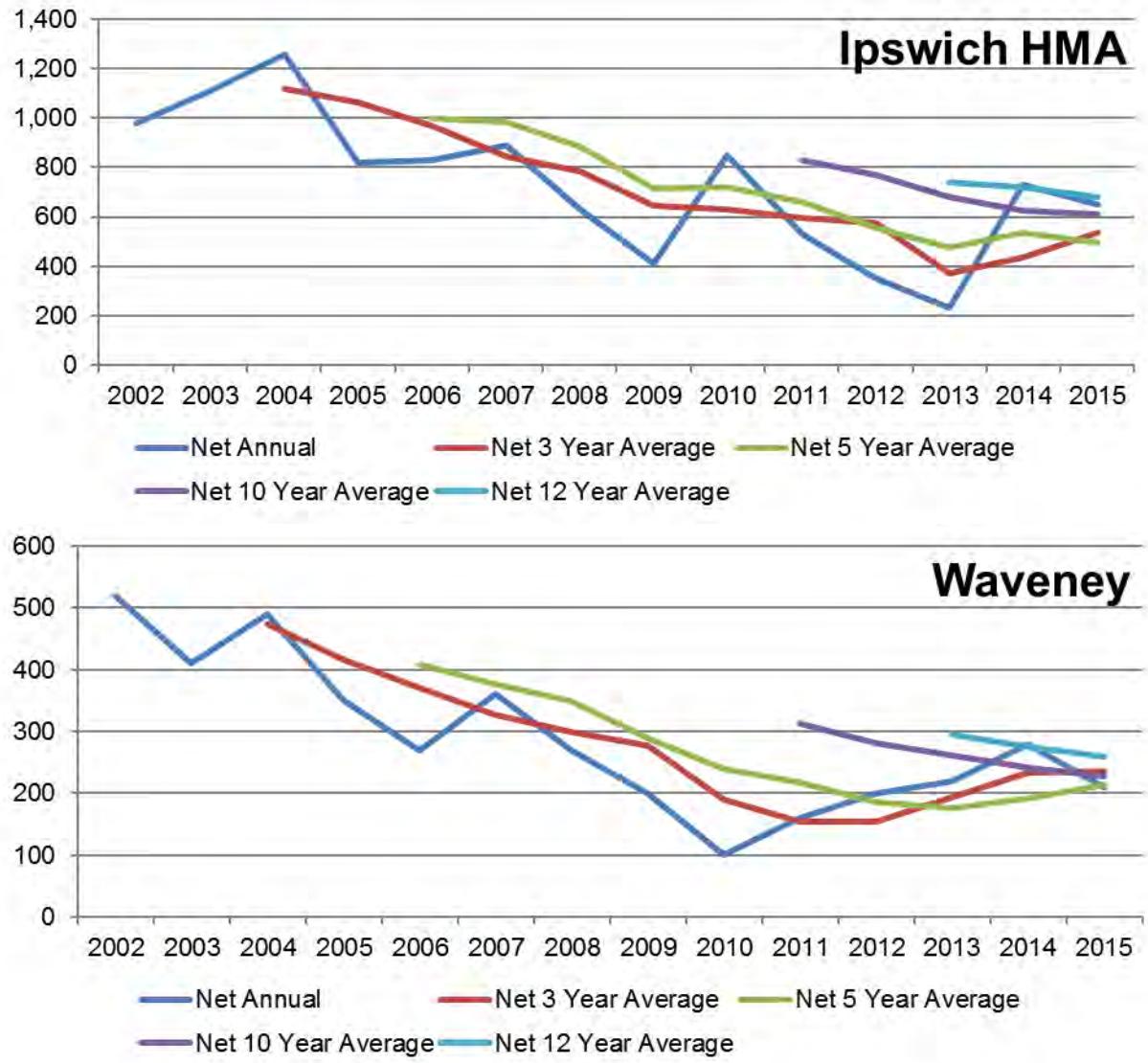
Figure E.1 Migration flows with London



Source: ONS

The charts below show average migration between London and the client authorities on a three, five, 10 and 12-year bases. This shows that if a longer-term trend is adopted, migration flows between London and the client authorities are higher than the five-year trends; but that this difference in the Waveney position is very modest.

Figure E.2 Average migration flows between London and the client authorities



Source: ONS

E.3 London in the context of overall migration

Migration flows between London and the client authorities only form one element of domestic migration within the projections. The table below sets out net migration flows to the client authorities in 2015 broken down by London, the rest of the UK and internationally: firstly on the basis of a five-year average, then for a 12-year average and finally looks at the difference between the two trends.

While it is clear that 12-year picture is higher, the majority of the difference is accounted for by higher overseas migration flows in the longer term projection.

Table E.1 Average net migration in 2015

	Ipswich HMA				Waveney			
	With London	Rest of UK	Internat'l	Total	With London	Rest of UK	Internat'l	Total
Net five-year average	498	1,145	-338	1,305	214	197	27	438
Net 12-year average	682	1,328	415	2,424	259	208	115	582
Difference	184	182	753	1,119	45	12	88	145
	16%	16%	67%	100%	31%	8%	61%	100%

E.4 The preferred projection

For the reasons set out in Section 5, like the official projections but incorporating the 2015 MYE, a five-year projection has been used.

From London's perspective, the main factor is the economic cycle: net out-migration from the capital in the last five years was below the long-term trend, probably due to the after-effects of the recession. The GLA considers that, as the economic recovery continues, migration will return to this long-term trend. It is likely that future modelling issued by the GLA will rely on a longer-term trend projection, as the right measure of how much trend-based migration from London authorities across the UK should prepare for.

However, in relation to the client group, the major difference between the two base periods is the exceptionally high overseas migration associated with the first EU accession around 2004. These years are part of the GLA's 12-year base period but not the SHMA's five-year base period. The 12-year-based projection in effect says that a similar upswing in migration will occur at some point in the plan period. Therefore, while a longer-term migration trend may be appropriate for the GLA to use for London, it would overstate total migration to the client authorities and hence the study area's housing need: if the GLA's analysis is correct it correctly captures future in-migration from London, but regardless of that it overstates future international in-migration.

E.5 Conclusion

In summary, a longer-term projection might be correct for London, but for the client authorities it seriously overstates future housing need, because its base period is affected by

exceptional factors which are nothing to do with out-migration from London. The same will apply to many non-London authorities, though the exceptional factors will vary.

On this basis, we do not recommend a demographic adjustment to account for London. But the authorities should continue to discuss the issue with the GLA as their plans and the future iterations of the London Plan emerge.

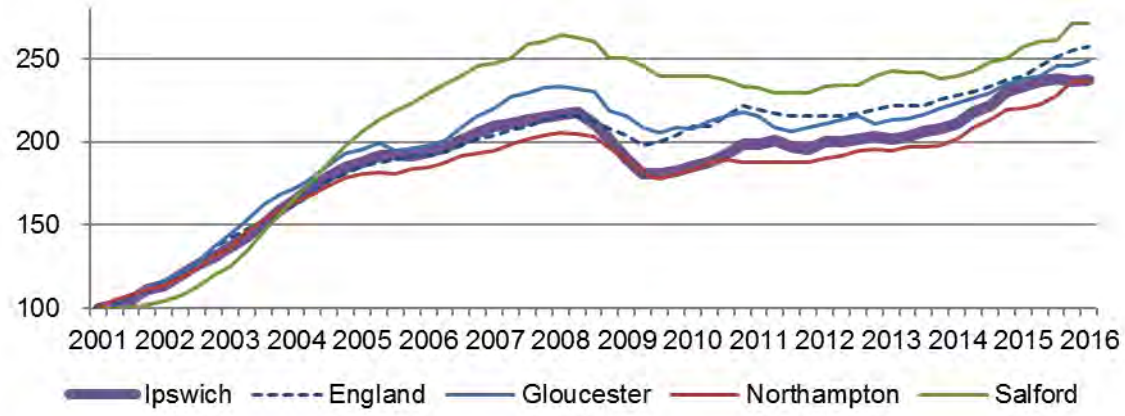
APPENDIX F MARKET SIGNALS

F.1 House prices

Ipswich

Figure F. shows that house prices in Ipswich increased very quickly between 2001 and 2008. However, the economic downturn had a significant impact, as house prices declined suddenly going into 2009. The change in house prices in Ipswich was in line with England before the economic downturn; however, the increase has been slower than England and almost all of its comparator areas since (end of 2009 to 2016).

Figure F.1 Ipswich median house prices (indexed), 2001-2016

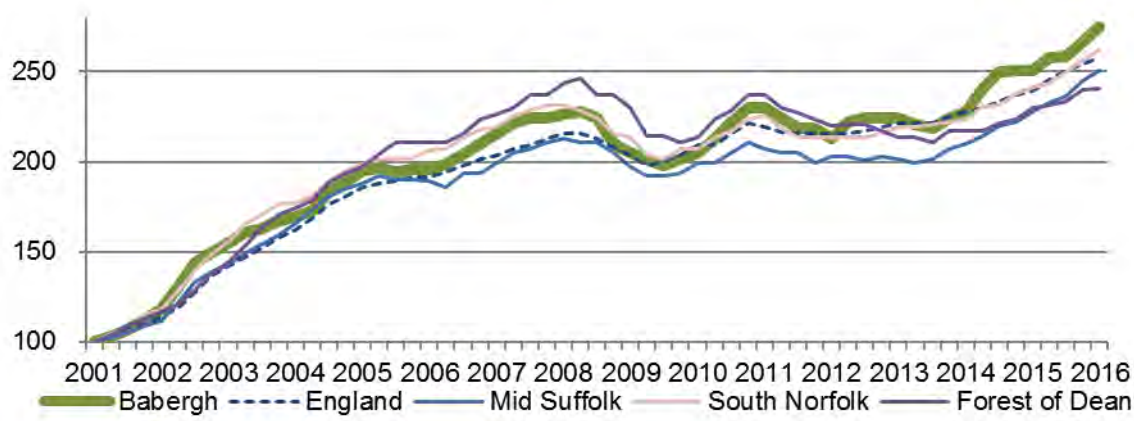


Source: ONS, HPSSA Dataset 9, Table 2a

Babergh

The figure below shows that house prices in Babergh increased at a much faster rate than England and its comparator areas between 2001 and 2016. Babergh has the second highest median house prices of all the client authorities.

Figure F.2 Babergh median house prices (indexed), 2001-2016

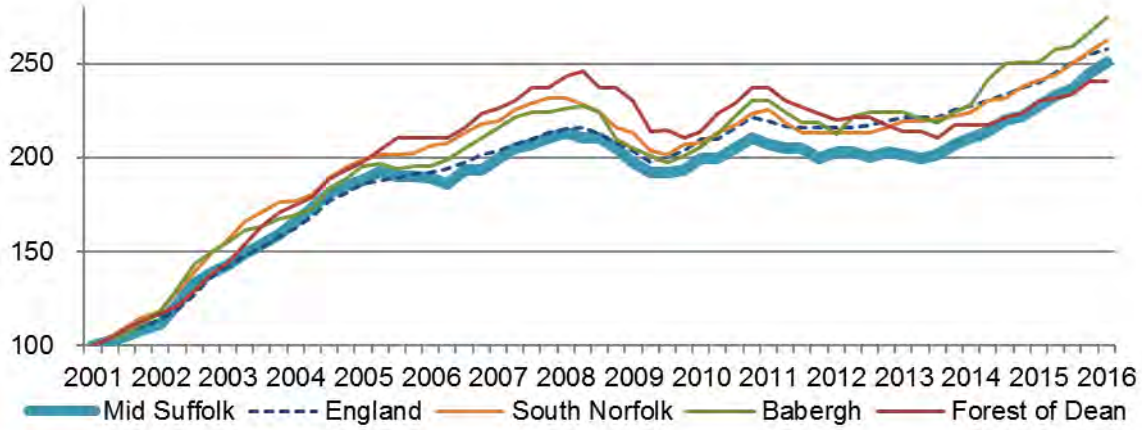


Source: ONS, HPSSA Dataset 9, Table 2a

Mid Suffolk

The figure below shows that Mid Suffolk has always experienced slower house price growth than its comparator areas. However, it was in line with the English level of growth until 2009. The housing market was hit hard by the recession in 2008, as house prices decline significantly after this date. 2013 onwards has seen an acceleration in house price growth in Mid Suffolk.

Figure F.3 Mid Suffolk median house prices (indexed), 2001-2016

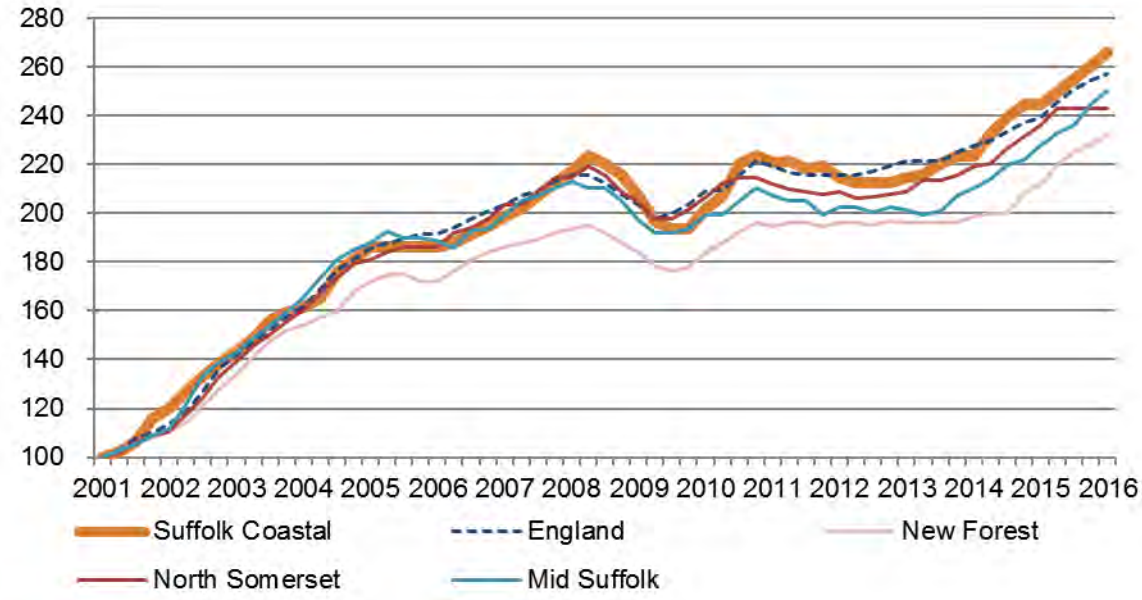


Source: ONS, HPSSA Dataset 9, Table 2a

Suffolk Coastal

Suffolk Coastal has the highest median house price of the client authorities. However, the change in price over time has been in line with England, but significantly higher than its comparator areas.

Figure F.4 Suffolk Coastal median house prices (indexed), 2001-2016

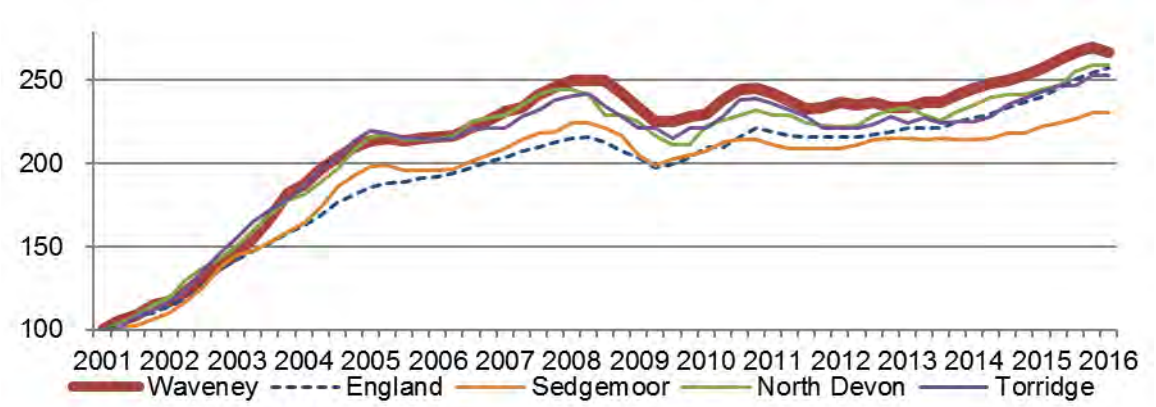


Source: ONS, HPSSA Dataset 9, Table 2a

Waveney

Although Waveney has one of the lowest house prices of the client authorities, the rate of increase between 2001-16 has been significantly faster than England and its comparator areas. This growth has slowed since 2009, as a result of the economic crisis.

Figure F.5 Waveney median house prices (indexed), 2001-2016



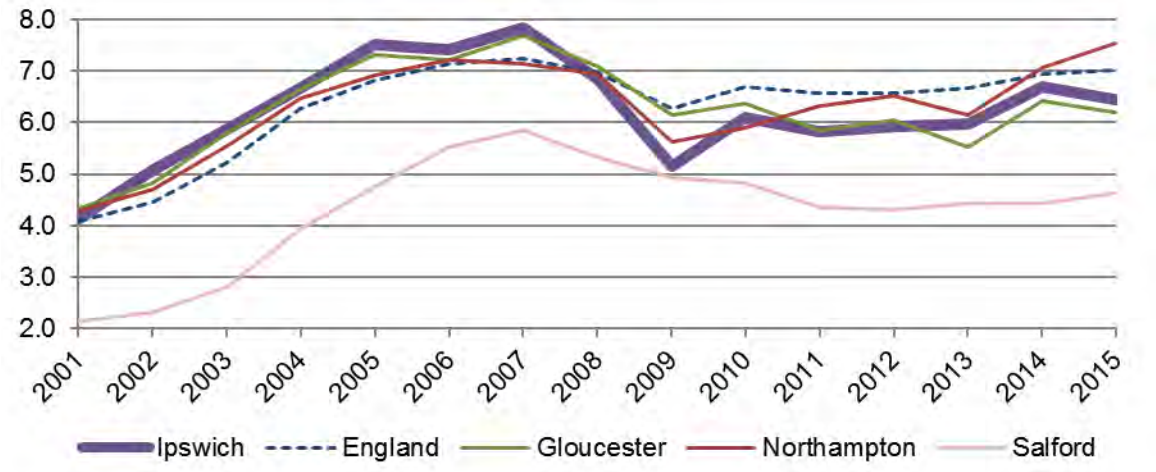
Source: ONS, HPSSA Dataset 9, Table 2a

F.2 Affordability market signals

Ipswich

Figure F.5 shows that Ipswich is an affordable local authority area. The most recent data shows that Ipswich has an affordability ratio of 6.4 compared to the national figure of 7. Considering its comparator areas, it is clear that Ipswich was impacted the most by the financial crisis, as its affordability ratio changed from its highest, 7.8, to its lowest, 5.2, in the period 2007 to 2009.

Figure F.6 Ipswich affordability

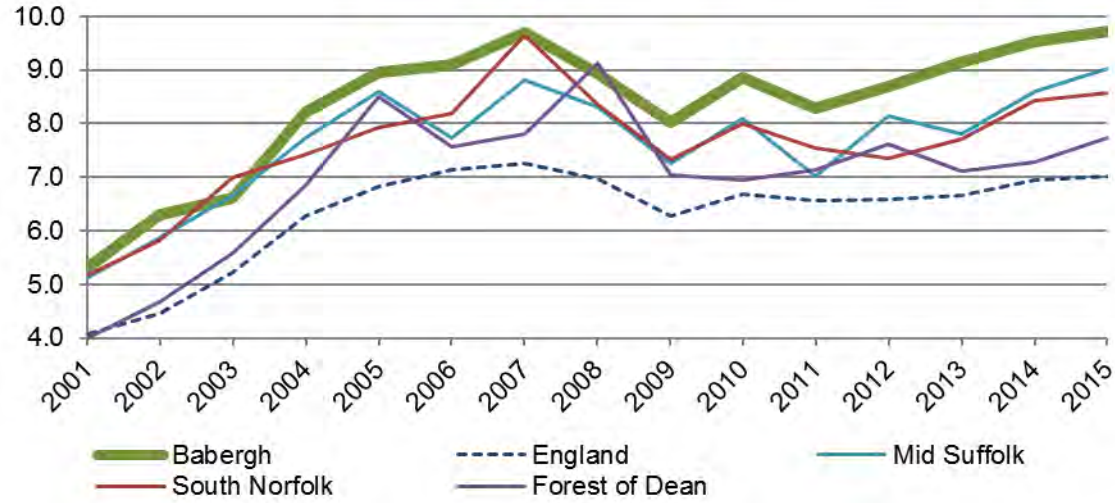


Source: CLG Table 576 and discontinued Table 576

Babergh

The figure below shows that Babergh is the least affordable authority when compared to England and its comparator areas. The most recent figures show that Babergh has an affordability ratio of almost 10, compared to the national ratio of 7. It is also the least affordable of the client authorities. The most significant period of increase in Babergh's affordability has been from 2009 onwards.

Figure F.7 Babergh affordability

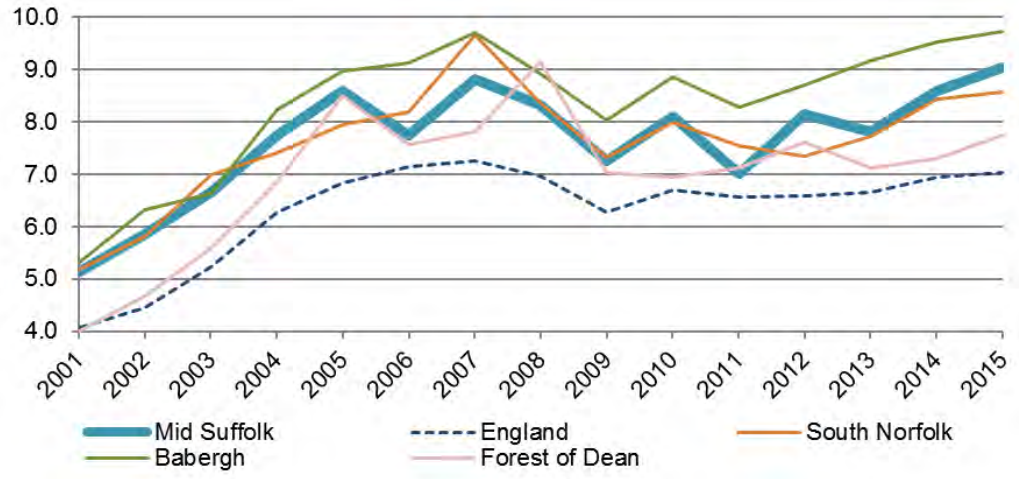


Source: CLG Table 576 and discontinued Table 576

Mid Suffolk

The figure below shows that the affordability ratio in Mid Suffolk has experienced many fluctuations over time. The most recent data shows that following a period of gradual increase between 2011 and the 2015, Mid Suffolk now has an affordability ratio of 9, making it a relatively unaffordable area. This figure is higher than that for England, Forest of Dean and South Norfolk. However, it is a more affordable area than Babergh.

Figure F.8 Mid Suffolk affordability

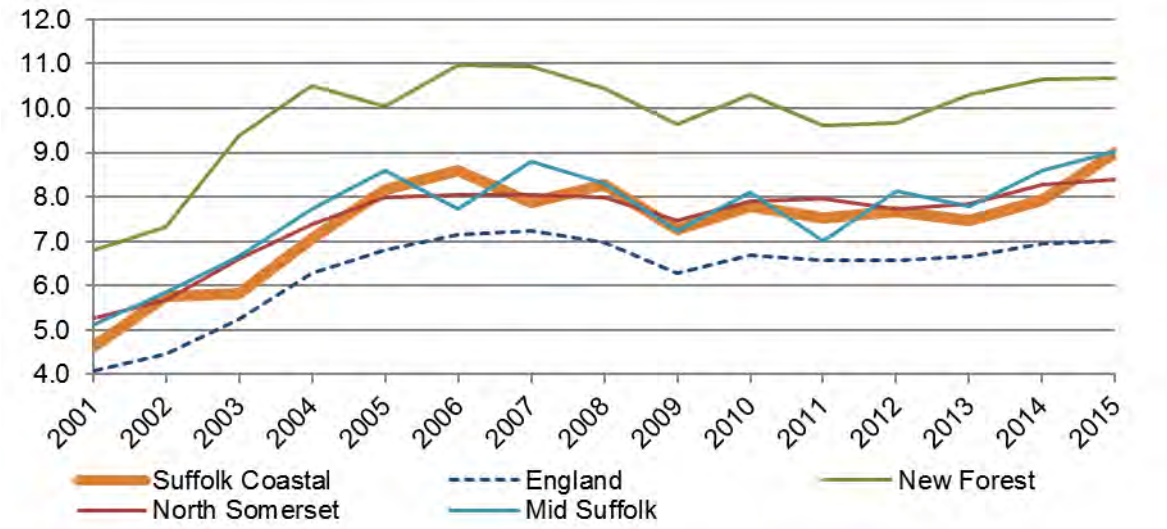


Source: CLG Table 576 and discontinued Table 576

Suffolk Coastal

Figure F. shows that the affordability ratio in Suffolk Coastal has remained relatively stable since 2005, with the most recent data showing an affordability ratio of 9. This is in line with its fellow client authority of Mid Suffolk, but it is more affordable than Babergh. Suffolk Coastal is also in line with all of its comparator areas, with the exception of New Forest.

Figure F.9 Suffolk Coastal affordability

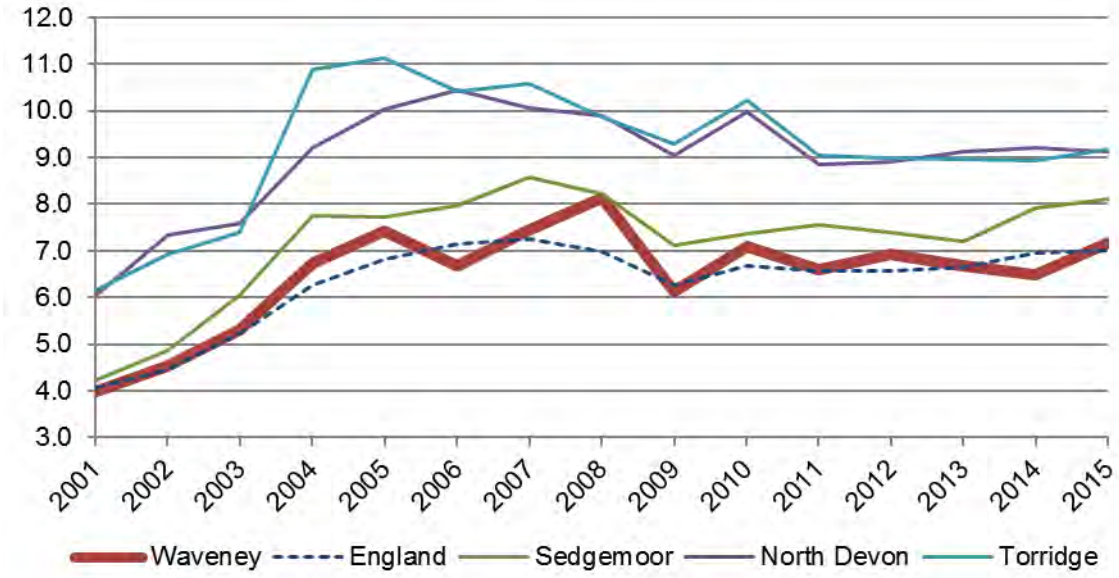


Source: CLG Table 576 and discontinued Table 576

Waveney

The figure below shows that Waveney has an affordability ratio in line with the national figure of 7. It has experienced periods of fluctuation in the past; however, it has remained stable at approximately 7 since 2010. Waveney is more affordable than all of its comparator areas, especially Torridge and North Devon who have an affordability ratio of 9.

Figure F.10 Waveney affordability



Source: CLG Table 576 and discontinued Table 576

APPENDIX G EXPERIAN BASELINE FORECASTS

APPENDIX G
EXPERIAN BASELINE (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0601	LF	Babergh	Labour Force	43.88	44.27	43.75	43.87	43.96	44.15	44.38	44.59	44.79	44.98	45.18	45.37	45.62	45.96	46.34	46.66	46.90	47.09	47.27	47.46	47.65	47.85	48.06	4.19
ET0601	LF16_64	Babergh	Labour Force - 16 to 64	40.70	39.87	40.02	39.83	39.78	39.82	39.91	39.94	39.97	39.99	40.02	40.00	39.90	39.82	39.73	39.62	39.50	39.36	39.24	39.17	39.10	39.06	39.03	-1.67
ET0601	LF65P	Babergh	Labour Force - 65 Plus	3.18	4.40	3.73	4.04	4.18	4.33	4.47	4.65	4.81	4.99	5.16	5.37	5.72	6.14	6.61	7.04	7.40	7.73	8.03	8.28	8.55	8.80	9.03	5.86
ET0601	POPPR	Babergh	Population - retired	23.44	23.41	23.51	23.85	24.18	24.32	24.11	24.44	24.97	25.52	26.06	26.56	26.89	26.87	26.97	27.56	28.19	28.85	29.48	30.11	30.72	31.25	31.79	8.35
ET0601	POPPS	Babergh	Population - student	15.59	15.51	15.43	15.45	15.50	15.51	15.45	15.44	15.44	15.40	15.34	15.31	15.26	15.17	15.12	15.08	15.07	15.08	15.08	15.07	15.06	15.05	15.04	-0.56
ET0601	POPP16P	Babergh	Population - 16 Plus	73.21	73.48	73.81	74.10	74.40	74.75	75.21	75.64	76.06	76.49	76.96	77.40	77.85	78.32	78.77	79.20	79.59	79.96	80.35	80.74	81.14	81.53	81.89	8.69
ET0601	POPP16_64	Babergh	Population - 16 to 64	51.49	51.12	50.84	50.56	50.31	50.13	50.09	49.98	49.83	49.71	49.66	49.54	49.34	49.16	48.93	48.66	48.38	48.08	47.81	47.63	47.45	47.30	47.13	-4.36
ET0601	POPP65P	Babergh	Population - 65 Plus	21.72	22.36	22.97	23.54	24.10	24.62	25.12	25.67	26.23	26.79	27.30	27.86	28.51	29.17	29.84	30.54	31.21	31.89	32.53	33.11	33.70	34.23	34.76	13.04
ET0601	POPPTOT	Babergh	Total Population	88.80	88.99	89.24	89.55	89.90	90.27	90.66	91.08	91.50	91.90	92.30	92.71	93.11	93.49	93.89	94.28	94.66	95.04	95.43	95.81	96.20	96.57	96.93	8.13
ET0601	POPPWA	Babergh	Working Age Population	49.77	50.08	50.30	50.24	50.22	50.43	51.11	51.20	51.09	50.98	50.90	50.84	50.96	51.45	51.79	51.64	51.40	51.11	50.87	50.63	50.43	50.27	50.10	0.33
ET0601	PRT16P	Babergh	Economic Activity Rate (%) - 16+	59.93	60.24	59.28	59.20	59.08	59.06	59.01	58.95	58.88	58.80	58.70	58.61	58.60	58.68	58.83	58.92	58.92	58.88	58.83	58.77	58.72	58.70	58.69	-1.24
ET0601	PRT16_64	Babergh	Economic Activity Rate (%) - 16 to 64	79.05	77.99	78.72	78.78	79.08	79.44	79.68	79.92	80.22	80.45	80.58	80.73	80.87	81.01	81.21	81.43	81.65	81.87	82.06	82.24	82.41	82.58	82.81	3.76
ET0601	PRT65P	Babergh	Economic Activity Rate (%) - 65 Plus	14.62	19.68	16.24	17.15	17.34	17.57	17.80	18.12	18.35	18.61	18.89	19.27	20.06	21.05	22.15	23.06	23.70	24.23	24.68	25.02	25.37	25.70	25.99	11.37
ET0601	PRTWA	Babergh	Economic Activity Rate (%) - Working Age	88.16	88.40	86.97	87.31	87.54	87.54	86.84	87.09	87.66	88.23	88.75	89.23	89.52	89.33	89.48	90.36	91.25	92.12	92.92	93.73	94.50	95.19	95.93	7.77
ET0601	W	Babergh	Workforce Jobs	37.50	38.16	38.67	38.54	38.52	38.55	38.63	38.71	38.87	39.05	39.16	39.22	39.31	39.41	39.50	39.60	39.66	39.69	39.72	39.76	39.80	39.84	39.88	2.38
ET0601	WZP	Babergh	Jobs Demand	37.53	38.16	38.67	38.54	38.52	38.55	38.63	38.71	38.87	39.05	39.16	39.22	39.31	39.41	39.50	39.60	39.66	39.69	39.72	39.76	39.80	39.84	39.88	2.35
ET0601	EXJ	Babergh	Excess Jobs	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03
ET0601	FTE	Babergh	FTE jobs	27.57	27.90	28.19	28.19	28.25	28.35	28.50	28.64	28.81	28.98	29.10	29.19	29.27	29.36	29.45	29.55	29.65	29.75	29.84	29.92	30.00	30.08	30.15	2.58
ET0601	ELFSWA	Babergh	Workplace based employment	37.19	37.71	37.93	37.70	37.66	37.65	37.71	37.79	37.95	38.13	38.25	38.34	38.46	38.59	38.72	38.85	38.94	39.00	39.05	39.10	39.15	39.20	39.25	2.06
ET0601	ELFS	Babergh	Residence based employment	41.98	42.67	42.50	42.45	42.54	42.69	42.89	43.12	43.40	43.61	43.81	44.00	44.22	44.54	44.90	45.25	45.48	45.67	45.84	46.03	46.21	46.41	46.61	4.63
ET0601	U	Babergh	Unemployment	1.90	1.60	1.25	1.42	1.42	1.46	1.49	1.47	1.39	1.36	1.37	1.37	1.40	1.42	1.44	1.41	1.42	1.42	1.42	1.43	1.44	1.45	1.45	-0.44
ET0601	NET_COMMUTING	Babergh	Net commuting balance (inflow)	-4.79	-4.96	-4.57	-4.75	-4.89	-5.04	-5.18	-5.33	-5.45	-5.48	-5.56	-5.65	-5.76	-5.95	-6.18	-6.40	-6.54	-6.67	-6.79	-6.93	-7.06	-7.21	-7.36	-2.57
ET0601	UR	Babergh	Unemployment Rate	4.32	3.61	2.86	3.23	3.22	3.30	3.36	3.30	3.09	3.03	3.03	3.02	3.07	3.08	3.11	3.03	3.02	3.01	3.01	3.02	3.02	3.02	3.03	-1.30
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0601	WAFF	Babergh	Agriculture, Forestry & Fishing WFJ	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.08
ET0601	WEXT	Babergh	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
ET0601	WMAN	Babergh	Manufacturing WFJ	6.1	6.0	5.9	5.8	5.8	5.8	5.7	5.6	5.5	5.5	5.4	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.7	-1.46
ET0601	WUTL	Babergh	Utilities WFJ	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.07
ET0601	WCON	Babergh	Construction WFJ	2.9	3.0	3.2	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	0.38
ET0601	WDIS	Babergh	Wholesale & Retail WFJ	6.7	6.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.5	-0.21
ET0601	WTRS	Babergh	Transport & storage WFJ	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	0.24
ET0601	WAFR	Babergh	Accomodation, Food Services & Recreation W	3.4	3.5	3.7	3.7	3.8	3.8	3.8	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.1	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.3	0.91
ET0601	WICO	Babergh	Information & communication WFJ	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.22
ET0601	WFIN	Babergh	Finance & Insurance WFJ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.01
ET0601	WPRI	Babergh	Professional & Other Private Services WFJ	6.8	7.1	7.1	7.0	7.1	7.1	7.1	7.1	7.2	7.2	7.3	7.3	7.3	7.4	7.4	7.5	7.5	7.5	7.6	7.6	7.6	7.7	7.7	0.90
ET0601	WPUB	Babergh	Public Services WFJ	7.7	7.6	7.8	7.8	7.8	7.8	7.8	7.9	8.0	8.1	8.2	8.2	8.3	8.4	8.5	8.6	8.6	8.7	8.7	8.8	8.8	8.9	9.0	1.21

APPENDIX G
EXPERIAN BASELINE (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0603	LF	Ipswich	Labour Force	71.54	71.69	70.73	71.05	71.45	71.94	72.50	73.07	73.64	74.05	74.43	74.79	75.24	75.73	76.25	76.67	76.99	77.29	77.59	77.90	78.21	78.55	78.94	7.40
ET0603	LF16_64	Ipswich	Labour Force - 16 to 64	69.78	69.50	68.30	68.45	68.72	69.05	69.47	69.88	70.29	70.53	70.75	70.93	71.12	71.32	71.50	71.65	71.69	71.78	71.88	71.99	72.09	72.25	72.44	2.66
ET0603	LF65P	Ipswich	Labour Force - 65 Plus	1.76	2.18	2.42	2.60	2.73	2.88	3.03	3.19	3.35	3.52	3.68	3.86	4.11	4.41	4.74	5.02	5.29	5.51	5.72	5.91	6.12	6.30	6.50	4.74
ET0603	POPPR	Ipswich	Population - retired	23.26	22.87	22.71	22.83	22.98	22.99	22.60	22.84	23.30	23.82	24.36	24.91	25.20	25.09	25.11	25.63	26.25	26.90	27.58	28.17	28.73	29.29	29.87	6.62
ET0603	POPPS	Ipswich	Population - student	26.80	26.99	27.19	27.51	27.87	28.17	28.33	28.44	28.47	28.50	28.45	28.40	28.27	28.13	27.96	27.85	27.80	27.78	27.75	27.72	27.69	27.67	27.67	0.87
ET0603	POPP16P	Ipswich	Population - 16 Plus	108.22	108.77	109.29	109.69	110.04	110.42	110.93	111.46	112.08	112.66	113.30	113.92	114.61	115.29	116.00	116.65	117.23	117.77	118.33	118.90	119.48	120.04	120.59	12.37
ET0603	POPP16_64	Ipswich	Population - 16 to 64	86.80	87.03	87.17	87.22	87.17	87.08	87.16	87.24	87.34	87.37	87.45	87.53	87.63	87.73	87.79	87.76	87.62	87.55	87.51	87.46	87.40	87.40	87.39	0.59
ET0603	POPP65P	Ipswich	Population - 65 Plus	21.42	21.74	22.12	22.47	22.87	23.35	23.77	24.22	24.74	25.29	25.85	26.39	26.98	27.56	28.21	28.89	29.61	30.23	30.83	31.44	32.08	32.65	33.19	11.77
ET0603	POPPTOT	Ipswich	Total Population	135.02	135.76	136.49	137.21	137.92	138.59	139.26	139.91	140.55	141.16	141.75	142.32	142.88	143.42	143.96	144.49	145.02	145.55	146.08	146.62	147.17	147.72	148.26	13.24
ET0603	POPPWA	Ipswich	Working Age Population	84.97	85.90	86.59	86.87	87.07	87.43	88.32	88.62	88.78	88.85	88.94	89.01	89.41	90.20	90.89	91.02	90.97	90.87	90.75	90.74	90.75	90.75	90.72	5.75
ET0603	PRT16P	Ipswich	Economic Activity Rate (%) - 16+	66.10	65.91	64.71	64.77	64.93	65.15	65.36	65.56	65.70	65.73	65.70	65.66	65.65	65.68	65.73	65.73	65.67	65.63	65.57	65.52	65.46	65.43	65.46	-0.64
ET0603	PRT16_64	Ipswich	Economic Activity Rate (%) - 16 to 64	80.39	79.86	78.36	78.47	78.84	79.30	79.70	80.10	80.48	80.73	80.90	81.04	81.17	81.29	81.45	81.64	81.82	81.99	82.14	82.31	82.48	82.67	82.89	2.50
ET0603	PRT65P	Ipswich	Economic Activity Rate (%) - 65 Plus	8.20	10.05	10.96	11.58	11.93	12.36	12.75	13.17	13.54	13.91	14.25	14.62	15.24	15.99	16.81	17.38	17.87	18.23	18.54	18.80	19.08	19.30	19.57	11.37
ET0603	PRTWA	Ipswich	Economic Activity Rate (%) - Working Age	84.19	83.45	81.69	81.79	82.06	82.28	82.08	82.45	82.94	83.35	83.69	84.03	84.15	83.95	83.89	84.23	84.62	85.05	85.50	85.85	86.18	86.55	87.02	2.82
ET0603	W	Ipswich	Workforce Jobs	80.94	81.92	83.51	83.81	84.39	85.06	85.76	86.53	87.41	88.08	88.66	89.23	89.91	90.72	91.58	92.35	92.94	93.51	94.12	94.78	95.46	96.16	96.90	15.96
ET0603	WZP	Ipswich	Jobs Demand	80.98	81.92	83.54	83.82	84.49	85.12	85.82	86.58	87.57	88.55	89.35	90.07	90.85	91.67	92.50	93.32	94.00	94.67	95.35	96.04	96.72	97.38	98.07	17.09
ET0603	EXJ	Ipswich	Excess Jobs	0.04	0.00	0.03	0.01	0.10	0.07	0.06	0.05	0.16	0.47	0.69	0.84	0.94	0.95	0.92	0.97	1.06	1.16	1.24	1.26	1.26	1.23	1.17	1.13
ET0603	FTE	Ipswich	FTE jobs	58.15	58.82	59.74	60.10	60.67	61.29	61.94	62.64	63.33	63.84	64.32	64.75	65.21	65.76	66.35	66.88	67.36	67.85	68.34	68.87	69.39	69.93	70.49	12.35
ET0603	ELFSWA	Ipswich	Workplace based employment	74.15	75.06	75.96	76.06	76.54	77.07	77.68	78.38	79.19	79.81	80.36	80.92	81.61	82.43	83.28	84.06	84.68	85.26	85.85	86.47	87.11	87.78	88.48	14.34
ET0603	ELFS	Ipswich	Residence based employment	66.70	67.31	67.60	67.64	68.08	68.51	69.00	69.56	70.20	70.64	71.01	71.36	71.76	72.22	72.71	73.16	73.47	73.76	74.05	74.34	74.64	74.95	75.31	8.61
ET0603	U	Ipswich	Unemployment	4.83	4.38	3.13	3.41	3.37	3.43	3.49	3.51	3.44	3.41	3.42	3.43	3.48	3.50	3.53	3.51	3.52	3.53	3.54	3.56	3.58	3.60	3.63	-1.21
ET0603	NET_COMMUTING	Ipswich	Net commuting balance (inflow)	7.45	7.75	8.36	8.42	8.46	8.56	8.68	8.82	8.99	9.16	9.34	9.57	9.85	10.21	10.57	10.90	11.20	11.50	11.80	12.14	12.48	12.83	13.17	5.73
ET0603	UR	Ipswich	Unemployment Rate	6.76	6.11	4.42	4.80	4.72	4.77	4.82	4.81	4.67	4.61	4.60	4.59	4.62	4.62	4.63	4.58	4.57	4.57	4.57	4.57	4.57	4.58	4.60	-2.16
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0603	WAFF	Ipswich	Agriculture, Forestry & Fishing WFJ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.01
ET0603	WEXT	Ipswich	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
ET0603	WMAN	Ipswich	Manufacturing WFJ	2.7	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	-0.76
ET0603	WUTL	Ipswich	Utilities WFJ	1.2	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.36
ET0603	WCON	Ipswich	Construction WFJ	4.3	4.6	4.9	4.9	4.9	4.9	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.4	5.5	5.5	5.5	5.6	5.6	5.6	1.30
ET0603	WDIS	Ipswich	Wholesale & Retail WFJ	11.2	11.4	11.3	11.4	11.5	11.5	11.6	11.6	11.7	11.7	11.8	11.8	11.8	11.9	11.9	11.9	11.9	11.9	12.0	12.0	12.0	12.0	12.0	0.81
ET0603	WTRS	Ipswich	Transport & storage WFJ	4.8	4.8	5.2	5.2	5.2	5.3	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.7	5.8	5.9	5.9	6.0	6.1	6.2	6.3	6.3	6.4	1.62
ET0603	WAFR	Ipswich	Accomodation, Food Services & Recreation W	6.8	7.0	7.4	7.5	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.3	8.4	8.5	8.6	8.7	8.8	8.9	8.9	9.0	9.1	9.2	9.3	2.45
ET0603	WICO	Ipswich	Information & communication WFJ	2.2	2.4	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	0.82
ET0603	WFIN	Ipswich	Finance & Insurance WFJ	7.4	7.2	7.0	7.1	7.2	7.3	7.3	7.4	7.4	7.4	7.5	7.5	7.6	7.6	7.7	7.7	7.8	7.8	7.9	7.9	8.0	8.0	8.1	0.70
ET0603	WPRI	Ipswich	Professional & Other Private Services WFJ	14.6	15.4	15.3	15.3	15.4	15.6	15.7	15.8	15.9	16.0	16.1	16.2	16.3	16.5	16.6	16.8	16.9	17.0	17.1	17.3	17.4	17.6	17.7	3.15
ET0603	WPUB	Ipswich	Public Services WFJ	25.7	25.1	25.8	25.8	25.8	26.0	26.4	26.7	27.1	27.5	27.8	28.0	28.3	28.6	29.0	29.3	29.6	29.8	30.1	30.3	30.6	30.8	31.1	5.45

APPENDIX G
EXPERIAN BASELINE (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-36
ET0604	LF	Mid Suffolk	Labour Force	52.3	52.7	52.2	52.2	52.4	52.6	53.0	53.2	53.5	53.8	54.1	54.3	54.6	54.9	55.3	55.5	55.7	55.9	56.0	56.2	56.4	56.6	56.8	4.5
ET0604	LF16_64	Mid Suffolk	Labour Force - 16 to 64	49.7	49.8	49.6	49.6	49.7	49.8	50.0	50.2	50.4	50.5	50.6	50.7	50.7	50.8	50.8	50.8	50.7	50.6	50.5	50.5	50.5	50.6	50.6	1.0
ET0604	LF65P	Mid Suffolk	Labour Force - 65 Plus	2.6	2.9	2.5	2.6	2.7	2.8	2.9	3.0	3.2	3.3	3.4	3.6	3.9	4.2	4.5	4.8	5.0	5.3	5.5	5.7	5.9	6.0	6.2	3.6
ET0604	POPPR	Mid Suffolk	Population - retired	24.4	24.3	24.5	24.9	25.2	25.4	25.2	25.6	26.1	26.8	27.5	28.1	28.5	28.5	28.6	29.2	29.9	30.7	31.5	32.2	32.9	33.5	34.2	9.8
ET0604	POPPS	Mid Suffolk	Population - student	17.5	17.5	17.5	17.5	17.6	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6	0.0
ET0604	POPP16P	Mid Suffolk	Population - 16 Plus	81.5	82.2	82.9	83.5	84.1	84.7	85.3	86.0	86.7	87.3	88.0	88.6	89.3	89.9	90.5	91.1	91.6	92.1	92.6	93.1	93.7	94.2	94.6	13.1
ET0604	POPP16_64	Mid Suffolk	Population - 16 to 64	59.0	59.1	59.0	59.0	58.9	58.9	59.0	59.0	59.1	59.0	59.0	59.0	58.9	58.8	58.6	58.4	58.1	57.8	57.5	57.4	57.2	57.1	57.0	-2.0
ET0604	POPP65P	Mid Suffolk	Population - 65 Plus	22.5	23.2	23.9	24.5	25.1	25.8	26.4	26.9	27.6	28.3	29.0	29.6	30.4	31.1	31.9	32.7	33.5	34.3	35.1	35.8	36.4	37.0	37.6	15.1
ET0604	POPPTOT	Mid Suffolk	Total Population	99.1	99.7	100.3	101.0	101.6	102.3	103.0	103.7	104.4	105.1	105.7	106.3	106.9	107.5	108.1	108.6	109.2	109.7	110.2	110.7	111.2	111.7	112.2	13.1
ET0604	POPPWA	Mid Suffolk	Working Age Population	57.2	57.9	58.4	58.6	58.8	59.2	60.1	60.4	60.5	60.6	60.5	60.5	60.8	61.5	61.9	61.9	61.7	61.4	61.2	60.9	60.7	60.6	60.4	3.3
ET0604	PRT16P	Mid Suffolk	Economic Activity Rate (%) - 16+	64.1	64.0	62.9	62.5	62.3	62.2	62.1	61.9	61.8	61.6	61.4	61.3	61.2	61.1	61.1	61.0	60.8	60.7	60.5	60.4	60.2	60.1	60.1	-4.1
ET0604	PRT16_64	Mid Suffolk	Economic Activity Rate (%) - 16 to 64	84.1	84.3	84.1	84.1	84.3	84.6	84.9	85.0	85.3	85.6	85.8	85.9	86.1	86.3	86.6	86.9	87.3	87.6	87.8	88.0	88.3	88.5	88.8	4.7
ET0604	PRT65P	Mid Suffolk	Economic Activity Rate (%) - 65 Plus	11.7	12.4	10.5	10.6	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.2	12.7	13.4	14.1	14.6	15.0	15.4	15.7	15.9	16.1	16.3	16.4	4.7
ET0604	W	Mid Suffolk	Workforce Jobs	42.8	43.5	44.4	44.3	44.3	44.4	44.5	44.7	45.0	45.3	45.5	45.7	45.9	46.1	46.3	46.6	46.7	46.9	47.0	47.2	47.3	47.5	47.6	4.9
ET0604	WZP	Mid Suffolk	Jobs Demand	42.8	43.5	44.4	44.3	44.3	44.4	44.5	44.7	45.0	45.3	45.5	45.7	45.9	46.1	46.3	46.6	46.7	46.9	47.0	47.2	47.3	47.5	47.6	4.8
ET0604	EXJ	Mid Suffolk	Excess Jobs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET0604	FTE	Mid Suffolk	FTE jobs	32.9	33.2	33.8	33.8	33.8	33.9	34.1	34.3	34.5	34.7	34.9	35.0	35.1	35.2	35.4	35.5	35.7	35.8	35.9	36.1	36.2	36.3	36.4	3.6
ET0604	ELFSWA	Mid Suffolk	Workplace based employment	44.1	44.4	44.9	44.6	44.6	44.7	44.8	44.9	45.2	45.5	45.8	46.0	46.2	46.5	46.8	47.1	47.3	47.4	47.6	47.8	48.0	48.1	48.3	4.2
ET0604	ELFS	Mid Suffolk	Residence based employment	51.2	51.1	50.4	50.3	50.4	50.6	50.9	51.1	51.6	51.9	52.2	52.4	52.6	52.9	53.2	53.4	53.6	53.7	53.8	54.0	54.1	54.3	54.5	3.3
ET0604	U	Mid Suffolk	Unemployment	1.1	1.6	1.7	1.9	2.0	2.0	2.1	2.1	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	1.3
ET0604	NET_COMMUTING	Mid Suffolk	Net commuting balance (inflow)	-7.1	-6.7	-5.5	-5.6	-5.8	-6.0	-6.1	-6.2	-6.3	-6.4	-6.4	-6.4	-6.4	-6.4	-6.4	-6.4	-6.3	-6.3	-6.2	-6.2	-6.1	-6.2	-6.2	0.9
ET0604	UR	Mid Suffolk	Unemployment Rate	2.0	3.0	3.3	3.6	3.7	3.8	3.9	3.9	3.7	3.5	3.5	3.6	3.6	3.7	3.8	3.8	3.9	3.9	4.0	4.0	4.1	4.1	4.1	2.1
ET	W	East of England	Workforce Jobs	3027.4	3090.2	3144.5	3153.7	3167.9	3185.8	3205.1	3225.6	3253.7	3283.3	3308.7	3332.0	3356.3	3382.1	3408.9	3435.8	3459.5	3482.2	3505.2	3527.9	3550.5	3572.8	3595.1	567.7
UK	WJ	United Kingdom	Workforce Jobs	33509.3	33950.0	34404.8	34455.2	34583.6	34745.2	34917.2	35103.6	35377.4	35668.7	35912.9	36131.3	36357.5	36598.9	36850.3	37098.1	37312.8	37517.6	37721.2	37923.3	38122.2	38318.7	38515.9	5006.6
ET0604	WAFF	Mid Suffolk	Agriculture, Forestry & Fishing WFJ	2.2	2.2	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	0.0
ET0604	WEXT	Mid Suffolk	Extraction & Mining WFJ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
ET0604	WMAN	Mid Suffolk	Manufacturing WFJ	5.3	5.2	5.2	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.7	4.7	4.6	4.6	4.6	-0.8
ET0604	WUTL	Mid Suffolk	Utilities WFJ	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
ET0604	WCON	Mid Suffolk	Construction WFJ	5.0	5.4	5.6	5.6	5.6	5.6	5.6	5.7	5.7	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.1	6.1	6.2	6.2	6.2	6.2	6.3	1.3
ET0604	WDIS	Mid Suffolk	Wholesale & Retail WFJ	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.2	5.2	-0.1
ET0604	WTRS	Mid Suffolk	Transport & storage WFJ	3.5	3.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	4.0	4.0	4.0	4.1	4.1	4.2	4.2	4.3	0.8
ET0604	WAFR	Mid Suffolk	Accomodation, Food Services & Recreation V	3.1	3.2	3.3	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9	3.9	4.0	4.0	4.0	0.9
ET0604	WICO	Mid Suffolk	Information & communication WFJ	1.0	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.2
ET0604	WFIN	Mid Suffolk	Finance & Insurance WFJ	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
ET0604	WPRI	Mid Suffolk	Professional & Other Private Services WFJ	7.3	7.6	7.5	7.5	7.5	7.5	7.5	7.6	7.6	7.6	7.7	7.7	7.7	7.8	7.8	7.8	7.9	7.9	7.9	8.0	8.0	8.0	8.1	0.7
ET0604	WPUB	Mid Suffolk	Public Services WFJ	9.3	9.1	9.4	9.3	9.3	9.3	9.4	9.5	9.6	9.8	9.9	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.7	10.8	10.9	1.6

APPENDIX G
EXPERIAN BASELINE (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0606	LF	Suffolk Coastal	Labour Force	63.77	62.53	62.00	62.29	62.50	62.77	63.06	63.39	63.66	63.92	64.16	64.39	64.76	65.23	65.75	66.13	66.41	66.65	66.87	67.08	67.29	67.51	67.75	3.99
ET0606	LF16_64	Suffolk Coastal	Labour Force - 16 to 64	59.32	57.74	55.89	55.97	55.92	55.92	55.93	55.96	55.94	55.86	55.74	55.59	55.38	55.17	54.95	54.67	54.39	54.12	53.89	53.71	53.57	53.48	53.41	-5.92
ET0606	LF65P	Suffolk Coastal	Labour Force - 65 Plus	4.45	4.79	6.11	6.32	6.58	6.85	7.13	7.43	7.72	8.06	8.42	8.80	9.38	10.06	10.79	11.46	12.02	12.53	12.97	13.37	13.72	14.03	14.35	9.90
ET0606	POPPR	Suffolk Coastal	Population - retired	34.93	34.74	34.81	35.20	35.60	35.72	35.33	35.78	36.49	37.28	38.11	38.92	39.41	39.37	39.50	40.33	41.23	42.20	43.15	44.04	44.89	45.66	46.39	11.46
ET0606	POPPS	Suffolk Coastal	Population - student	21.17	20.97	20.85	20.86	20.93	20.93	20.91	20.84	20.77	20.66	20.52	20.41	20.27	20.12	20.02	19.98	19.92	19.90	19.87	19.83	19.79	19.74	19.70	-1.47
ET0606	POPP16P	Suffolk Coastal	Population - 16 Plus	103.57	103.87	104.16	104.38	104.60	104.94	105.37	105.88	106.39	106.93	107.49	108.03	108.58	109.15	109.67	110.13	110.59	111.04	111.50	111.98	112.45	112.91	113.33	9.76
ET0606	POPP16_64	Suffolk Coastal	Population - 16 to 64	71.14	70.66	70.16	69.63	69.13	68.76	68.51	68.29	68.00	67.71	67.44	67.12	66.76	66.38	65.95	65.39	64.86	64.35	63.92	63.56	63.24	62.99	62.70	-8.44
ET0606	POPP65P	Suffolk Coastal	Population - 65 Plus	32.43	33.21	34.00	34.75	35.47	36.17	36.86	37.59	38.39	39.23	40.06	40.91	41.83	42.77	43.72	44.74	45.74	46.69	47.59	48.42	49.21	49.92	50.63	18.20
ET0606	POPPTOT	Suffolk Coastal	Total Population	124.74	124.84	125.02	125.24	125.53	125.87	126.27	126.72	127.16	127.59	128.02	128.44	128.86	129.27	129.70	130.11	130.52	130.94	131.37	131.80	132.23	132.65	133.03	8.29
ET0606	POPPWA	Suffolk Coastal	Working Age Population	68.64	69.13	69.36	69.18	69.00	69.22	70.04	70.10	69.90	69.65	69.39	69.11	69.17	69.78	70.18	69.80	69.36	68.84	68.36	67.93	67.56	67.25	66.94	-1.70
ET0606	PRT16P	Suffolk Coastal	Economic Activity Rate (%) - 16+	61.57	60.20	59.52	59.68	59.75	59.81	59.85	59.87	59.83	59.77	59.68	59.61	59.64	59.76	59.95	60.04	60.05	60.02	59.97	59.91	59.84	59.79	59.78	-1.78
ET0606	PRT16_64	Suffolk Coastal	Economic Activity Rate (%) - 16 to 64	83.39	81.72	79.66	80.38	80.89	81.32	81.65	81.94	82.26	82.50	82.66	82.82	82.96	83.12	83.33	83.60	83.86	84.11	84.31	84.50	84.70	84.91	85.17	1.79
ET0606	PRT65P	Suffolk Coastal	Economic Activity Rate (%) - 65 Plus	13.71	14.42	17.97	18.19	18.55	18.93	19.33	19.77	20.11	20.55	21.01	21.52	22.43	23.52	24.69	25.61	26.29	26.83	27.27	27.62	27.89	28.10	28.34	14.63
ET0606	PRTWA	Suffolk Coastal	Economic Activity Rate (%) - Working Age	92.90	90.46	89.39	90.04	90.57	90.68	90.04	90.42	91.07	91.77	92.46	93.17	93.63	93.48	93.69	94.73	95.75	96.82	97.82	98.75	99.59	100.38	101.22	8.32
ET0606	W	Suffolk Coastal	Workforce Jobs	59.06	60.45	62.50	62.73	62.91	63.21	63.43	63.65	64.03	64.42	64.72	64.96	65.26	65.58	65.90	66.23	66.45	66.69	66.95	67.20	67.44	67.66	67.89	8.83
ET0606	WZP	Suffolk Coastal	Jobs Demand	59.07	60.45	62.61	62.76	62.93	63.21	63.43	63.65	64.03	64.43	64.72	64.96	65.26	65.58	65.90	66.23	66.46	66.69	66.95	67.20	67.44	67.66	67.89	8.82
ET0606	EXJ	Suffolk Coastal	Excess Jobs	0.01	0.00	0.10	0.03	0.03	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
ET0606	FTE	Suffolk Coastal	FTE jobs	45.14	46.22	47.56	47.93	48.14	48.46	48.75	49.03	49.38	49.70	49.98	50.18	50.40	50.62	50.86	51.11	51.34	51.59	51.85	52.09	52.32	52.53	52.75	7.60
ET0606	ELFSWA	Suffolk Coastal	Workplace based employment	54.83	55.44	55.90	55.93	56.05	56.27	56.44	56.64	56.99	57.34	57.63	57.88	58.20	58.54	58.88	59.23	59.48	59.74	60.00	60.24	60.47	60.68	60.91	6.08
ET0606	ELFS	Suffolk Coastal	Residence based employment	61.59	60.74	60.39	60.44	60.46	60.63	60.87	61.19	61.54	61.83	62.07	62.30	62.62	63.07	63.56	63.98	64.26	64.49	64.70	64.91	65.11	65.32	65.55	3.96
ET0606	U	Suffolk Coastal	Unemployment	2.18	1.79	1.61	1.85	2.03	2.13	2.19	2.19	2.12	2.08	2.09	2.09	2.14	2.16	2.19	2.15	2.16	2.16	2.17	2.17	2.18	2.19	2.20	0.02
ET0606	NET_COMMUTING	Suffolk Coastal	Net commuting balance (inflow)	-6.76	-5.30	-4.48	-4.51	-4.41	-4.36	-4.43	-4.55	-4.55	-4.49	-4.44	-4.42	-4.42	-4.53	-4.68	-4.75	-4.77	-4.75	-4.70	-4.67	-4.64	-4.64	-4.65	2.12
ET0606	UR	Suffolk Coastal	Unemployment Rate	3.42	2.87	2.60	2.98	3.25	3.40	3.47	3.46	3.32	3.26	3.26	3.25	3.31	3.32	3.33	3.25	3.25	3.24	3.24	3.24	3.24	3.25	3.25	-0.17
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0606	WAFF	Suffolk Coastal	Agriculture, Forestry & Fishing WFJ	2.2	2.4	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.17
ET0606	WEXT	Suffolk Coastal	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
ET0606	WMAN	Suffolk Coastal	Manufacturing WFJ	3.2	3.2	3.1	3.1	3.1	3.1	3.0	3.0	2.9	2.9	2.9	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.5	-0.72
ET0606	WUTL	Suffolk Coastal	Utilities WFJ	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.26
ET0606	WCON	Suffolk Coastal	Construction WFJ	3.1	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	0.68
ET0606	WDIS	Suffolk Coastal	Wholesale & Retail WFJ	7.7	7.9	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.7	7.7	7.7	7.6	7.6	7.6	-0.18
ET0606	WTRS	Suffolk Coastal	Transport & storage WFJ	9.2	9.2	9.9	9.9	10.0	10.0	10.1	10.1	10.2	10.3	10.3	10.4	10.6	10.7	10.8	10.9	11.0	11.1	11.3	11.4	11.5	11.6	11.8	2.51
ET0606	WAFR	Suffolk Coastal	Accomodation, Food Services & Recreation W	6.4	6.7	7.0	7.2	7.2	7.4	7.4	7.5	7.6	7.7	7.7	7.8	7.8	7.9	8.0	8.0	8.1	8.1	8.2	8.2	8.3	8.3	8.3	1.90
ET0606	WICO	Suffolk Coastal	Information & communication WFJ	4.1	4.6	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.3	5.4	5.4	5.4	5.5	5.5	5.5	5.6	5.6	5.6	5.7	5.7	5.7	1.61
ET0606	WFIN	Suffolk Coastal	Finance & Insurance WFJ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.03
ET0606	WPRI	Suffolk Coastal	Professional & Other Private Services WFJ	8.3	8.6	8.6	8.6	8.6	8.7	8.7	8.7	8.7	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9	8.9	9.0	0.71
ET0606	WPUB	Suffolk Coastal	Public Services WFJ	13.2	12.9	13.2	13.2	13.2	13.2	13.3	13.5	13.6	13.8	13.9	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.0	15.0	1.86

APPENDIX G
EXPERIAN BASELINE (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0607	LF	Waveney	Labour Force	51.69	52.91	53.90	53.91	54.03	54.21	54.40	54.55	54.71	54.90	55.12	55.32	55.52	55.82	56.16	56.42	56.62	56.75	56.90	57.09	57.29	57.51	57.73	6.03
ET0607	LF16_64	Waveney	Labour Force - 16 to 64	49.19	49.92	51.02	51.04	51.07	51.14	51.24	51.28	51.36	51.45	51.54	51.58	51.54	51.55	51.58	51.58	51.54	51.46	51.38	51.37	51.40	51.47	51.54	2.35
ET0607	LF65P	Waveney	Labour Force - 65 Plus	2.50	2.99	2.88	2.88	2.96	3.07	3.16	3.27	3.35	3.46	3.58	3.74	3.99	4.27	4.57	4.84	5.07	5.30	5.52	5.72	5.89	6.04	6.18	3.68
ET0607	POPPR	Waveney	Population - retired	32.21	31.82	31.65	31.79	31.96	31.90	31.38	31.52	31.95	32.38	32.86	33.34	33.60	33.41	33.37	33.92	34.51	35.16	35.81	36.48	37.14	37.72	38.25	6.04
ET0607	POPPS	Waveney	Population - student	19.86	19.88	19.87	19.97	20.07	20.15	20.24	20.35	20.43	20.44	20.39	20.34	20.32	20.24	20.16	20.09	20.06	20.06	20.04	20.03	20.00	19.99	19.97	0.12
ET0607	POPP16P	Waveney	Population - 16 Plus	96.07	96.19	96.45	96.63	96.87	97.13	97.42	97.70	98.02	98.43	98.90	99.37	99.80	100.28	100.77	101.25	101.70	102.11	102.53	102.96	103.39	103.81	104.21	8.14
ET0607	POPP16_64	Waveney	Population - 16 to 64	65.95	65.67	65.50	65.26	65.02	64.84	64.79	64.64	64.53	64.45	64.43	64.35	64.16	64.02	63.89	63.69	63.45	63.16	62.88	62.68	62.54	62.46	62.34	-3.61
ET0607	POPP65P	Waveney	Population - 65 Plus	30.12	30.53	30.95	31.37	31.85	32.29	32.64	33.06	33.49	33.98	34.47	35.02	35.64	36.26	36.89	37.56	38.25	38.95	39.65	40.28	40.86	41.36	41.88	11.75
ET0607	POPPTOT	Waveney	Total Population	115.93	116.07	116.32	116.60	116.94	117.29	117.66	118.05	118.46	118.87	119.29	119.71	120.12	120.53	120.93	121.35	121.76	122.17	122.57	122.99	123.40	123.80	124.19	8.26
ET0607	POPPWA	Waveney	Working Age Population	63.86	64.38	64.80	64.85	64.91	65.23	66.04	66.18	66.08	66.05	66.05	66.03	66.21	66.88	67.41	67.34	67.19	66.95	66.72	66.48	66.25	66.09	65.96	2.11
ET0607	PRT16P	Waveney	Economic Activity Rate (%) - 16+	53.81	55.00	55.89	55.79	55.78	55.81	55.84	55.83	55.82	55.78	55.73	55.67	55.63	55.66	55.73	55.72	55.67	55.58	55.49	55.45	55.41	55.40	55.39	1.58
ET0607	PRT16_64	Waveney	Economic Activity Rate (%) - 16 to 64	74.60	76.01	77.90	78.20	78.54	78.87	79.09	79.33	79.59	79.83	79.99	80.15	80.33	80.52	80.74	80.99	81.23	81.47	81.71	81.96	82.19	82.41	82.68	8.08
ET0607	PRT65P	Waveney	Economic Activity Rate (%) - 65 Plus	8.29	9.79	9.30	9.18	9.31	9.50	9.68	9.89	10.01	10.17	10.39	10.69	11.18	11.78	12.40	12.89	13.27	13.60	13.92	14.19	14.42	14.59	14.76	6.47
ET0607	PRTWA	Waveney	Economic Activity Rate (%) - Working Age	80.95	82.18	83.19	83.14	83.24	83.10	82.37	82.43	82.80	83.12	83.46	83.78	83.87	83.47	83.31	83.79	84.27	84.78	85.28	85.87	86.47	87.01	87.51	6.56
ET0607	W	Waveney	Workforce Jobs	48.03	48.77	49.51	49.51	49.51	49.59	49.70	49.82	50.09	50.35	50.53	50.67	50.84	51.01	51.20	51.39	51.50	51.61	51.71	51.84	51.95	52.05	52.14	4.11
ET0607	WZP	Waveney	Jobs Demand	48.07	48.77	49.54	49.51	49.51	49.59	49.70	49.82	50.09	50.35	50.53	50.67	50.84	51.01	51.20	51.39	51.50	51.61	51.71	51.84	51.95	52.05	52.14	4.07
ET0607	EXJ	Waveney	Excess Jobs	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04
ET0607	FTE	Waveney	FTE jobs	35.53	35.74	36.11	36.19	36.26	36.37	36.53	36.67	36.87	37.06	37.20	37.28	37.37	37.45	37.55	37.67	37.77	37.88	37.99	38.13	38.24	38.34	38.43	2.90
ET0607	ELFSWA	Waveney	Workplace based employment	46.36	46.95	47.19	47.09	47.06	47.09	47.18	47.30	47.55	47.81	48.00	48.16	48.36	48.57	48.80	49.02	49.17	49.31	49.43	49.57	49.68	49.79	49.90	3.54
ET0607	ELFS	Waveney	Residence based employment	48.26	50.18	51.45	51.29	51.32	51.41	51.56	51.73	52.06	52.34	52.57	52.76	52.99	53.25	53.55	53.85	54.05	54.19	54.32	54.54	54.70	54.89	55.10	6.85
ET0607	U	Waveney	Unemployment	3.44	2.73	2.45	2.62	2.71	2.80	2.84	2.81	2.65	2.56	2.55	2.56	2.54	2.57	2.61	2.58	2.57	2.57	2.58	2.55	2.59	2.62	2.62	-0.81
ET0607	NET_COMMUTING	Waveney	Net commuting balance (inflow)	-1.90	-3.23	-4.26	-4.21	-4.26	-4.32	-4.37	-4.44	-4.51	-4.54	-4.57	-4.60	-4.62	-4.68	-4.75	-4.82	-4.88	-4.87	-4.89	-4.97	-5.01	-5.10	-5.20	-3.30
ET0607	UR	Waveney	Unemployment Rate	6.65	5.16	4.54	4.86	5.01	5.16	5.23	5.16	4.85	4.66	4.62	4.63	4.57	4.60	4.64	4.57	4.53	4.52	4.53	4.46	4.53	4.55	4.55	-2.10
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0607	WAFF	Waveney	Agriculture, Forestry & Fishing WFJ	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.16
ET0607	WEXT	Waveney	Extraction & Mining WFJ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.00
ET0607	WMAN	Waveney	Manufacturing WFJ	7.1	7.1	7.0	6.9	6.9	6.9	6.8	6.7	6.7	6.6	6.6	6.5	6.4	6.3	6.3	6.2	6.2	6.1	6.0	6.0	5.9	5.9	5.8	-1.34
ET0607	WUTL	Waveney	Utilities WFJ	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.13
ET0607	WCON	Waveney	Construction WFJ	3.4	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.1	0.69
ET0607	WDIS	Waveney	Wholesale & Retail WFJ	8.2	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.5	8.5	8.5	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	0.42
ET0607	WTRS	Waveney	Transport & storage WFJ	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	0.41
ET0607	WAFR	Waveney	Accomodation, Food Services & Recreation V	5.6	5.9	6.1	6.2	6.3	6.3	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.8	6.9	7.0	7.0	7.0	7.1	7.1	7.2	7.2	7.2	1.62
ET0607	WICO	Waveney	Information & communication WFJ	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.09
ET0607	WFIN	Waveney	Finance & Insurance WFJ	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.01
ET0607	WPRI	Waveney	Professional & Other Private Services WFJ	7.7	8.0	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.2	0.58
ET0607	WPUB	Waveney	Public Services WFJ	11.6	11.3	11.6	11.5	11.4	11.4	11.5	11.6	11.7	11.9	12.0	12.1	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.7	12.8	12.8	12.9	1.32

APPENDIX H EXPERIAN EEFM FORECASTS

Specification and caveat

The 'EEFM Experian' (EE) scenarios show below are produced by the Experian local forecasting model. They forecast whether the population shown in our preferred demographic projection would provide enough workers to meet labour demand over the plan period as follows:

Ipswich	19,040 net new jobs
Babergh	3,640 net new jobs
Mid Suffolk	6,450 net new jobs
Suffolk Coastal	7.940 net new jobs.

The above job demand numbers are taken from the EEFM model, as discussed in the body of this report. In relation to other economic variables, including future economic activity rates, the scenarios are based on the assumptions and methods of Experian's local forecasting model.

The results of the EE scenario below cannot be considered an extension of the EEFM forecast. That is because the Experian and EEFM models may include mutually inconsistent assumptions and methods.

For example, the two models may incorporate different views of future trends in national activity rates (or participation rates) – which are also a main factor driving local activity rates. If so, a combination of the two models would be logically inconsistent. How much difference this makes in practice, would depend on the size of the discrepancies between the two models. A note posted on the on the EEFM website points to this danger (our emphasis):

'*EEFM is an integrated model, which forecasts both jobs (labour demand) and the population needed to fill those jobs.* ***Users should not make alternative estimates of the population needed to fill the EEFM jobs, based on economic activity / participation rates from another source. To do so is logically inconsistent with EEFM and the results may be highly misleading***.'

Bearing in mind the above, the EE scenarios cannot be regarded as an extension of the EEFM, because they may incorporate assumptions and methods incompatible with the EEFM. The scenario estimates what would happen to the balance of the labour market if job demand were as shown above. In itself It does not tell us whether these job demand figures are correct, or whether they are compatible with the assumptions and methods incorporated in Experian's modelling.

APPENDIX H
EEFM EXPERIAN SCENARIO (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0601	LF	Babergh	Labour Force	43.88	44.27	43.75	43.92	44.09	44.35	44.68	44.98	45.22	45.41	45.61	45.80	46.06	46.40	46.79	47.11	47.34	47.53	47.71	47.90	48.09	48.30	48.51	4.63
ET0601	LF16_64	Babergh	Labour Force - 16 to 64	40.70	39.87	40.02	39.88	39.90	40.01	40.17	40.29	40.36	40.38	40.41	40.38	40.29	40.21	40.11	40.00	39.88	39.73	39.61	39.54	39.46	39.42	39.39	-1.31
ET0601	LF65P	Babergh	Labour Force - 65 Plus	3.18	4.40	3.73	4.04	4.19	4.35	4.50	4.69	4.86	5.03	5.21	5.42	5.77	6.20	6.67	7.11	7.47	7.80	8.10	8.36	8.63	8.88	9.12	5.94
ET0601	POPPR	Babergh	Population - retired	23.44	23.41	23.51	23.85	24.18	24.32	24.11	24.44	24.97	25.52	26.06	26.56	26.89	26.87	26.97	27.56	28.19	28.85	29.48	30.11	30.72	31.25	31.79	8.35
ET0601	POPPS	Babergh	Population - student	15.59	15.51	15.43	15.45	15.50	15.51	15.45	15.44	15.44	15.40	15.34	15.31	15.26	15.17	15.12	15.08	15.07	15.08	15.08	15.07	15.06	15.05	15.04	-0.56
ET0601	POPP16P	Babergh	Population - 16 Plus	73.21	73.48	73.81	74.10	74.40	74.75	75.21	75.64	76.06	76.49	76.96	77.40	77.85	78.32	78.77	79.20	79.59	79.96	80.35	80.74	81.14	81.53	81.89	8.69
ET0601	POPP16_64	Babergh	Population - 16 to 64	51.49	51.12	50.84	50.56	50.31	50.13	50.09	49.98	49.83	49.71	49.66	49.54	49.34	49.16	48.93	48.66	48.38	48.08	47.81	47.63	47.45	47.30	47.13	-4.36
ET0601	POPP65P	Babergh	Population - 65 Plus	21.72	22.36	22.97	23.54	24.10	24.62	25.12	25.67	26.23	26.79	27.30	27.86	28.51	29.17	29.84	30.54	31.21	31.89	32.53	33.11	33.70	34.23	34.76	13.04
ET0601	POPPTOT	Babergh	Total Population	88.80	88.99	89.24	89.55	89.90	90.27	90.66	91.08	91.50	91.90	92.30	92.71	93.11	93.49	93.89	94.28	94.66	95.04	95.43	95.81	96.20	96.57	96.93	8.13
ET0601	POPPWA	Babergh	Working Age Population	49.77	50.08	50.30	50.24	50.22	50.43	51.11	51.20	51.09	50.98	50.90	50.84	50.96	51.45	51.79	51.64	51.40	51.11	50.87	50.63	50.43	50.27	50.10	0.33
ET0601	PRT16P	Babergh	Economic Activity Rate (%) - 16+	59.93	60.24	59.28	59.27	59.25	59.33	59.40	59.46	59.45	59.36	59.27	59.18	59.17	59.25	59.40	59.48	59.48	59.44	59.38	59.33	59.27	59.24	59.23	-0.70
ET0601	PRT16_64	Babergh	Economic Activity Rate (%) - 16 to 64	79.05	77.99	78.72	78.87	79.31	79.80	80.21	80.62	80.99	81.23	81.36	81.51	81.65	81.79	81.98	82.20	82.42	82.64	82.83	83.01	83.18	83.35	83.58	4.53
ET0601	PRT65P	Babergh	Economic Activity Rate (%) - 65 Plus	14.62	19.68	16.24	17.17	17.39	17.65	17.92	18.28	18.52	18.79	19.08	19.46	20.25	21.25	22.36	23.28	23.93	24.46	24.91	25.25	25.61	25.94	26.23	11.61
ET0601	PRTWA	Babergh	Economic Activity Rate (%) - Working Age	88.16	88.40	86.97	87.41	87.79	87.94	87.42	87.84	88.50	89.08	89.61	90.09	90.38	90.19	90.33	91.22	92.11	92.99	93.79	94.61	95.38	96.07	96.82	8.66
ET0601	W	Babergh	Workforce Jobs	37.50	38.16	38.67	38.86	39.27	39.80	40.23	40.58	40.87	41.11	41.34	41.55	41.76	41.91	42.01	42.16	42.29	42.36	42.44	42.54	42.58	42.62	42.73	5.23
ET0601	WZP	Babergh	Jobs Demand	37.53	38.16	38.67	40.24	40.40	40.53	40.72	40.81	40.96	41.15	41.34	41.55	41.76	41.91	42.01	42.16	42.29	42.36	42.44	42.54	42.58	42.62	42.73	5.20
ET0601	EXJ	Babergh	Excess Jobs	0.03	0.00	0.00	1.38	1.12	0.73	0.49	0.24	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03
ET0601	FTE	Babergh	FTE jobs	27.57	27.90	28.19	28.42	28.80	29.27	29.68	30.03	30.29	30.50	30.72	30.92	31.09	31.22	31.32	31.46	31.63	31.75	31.88	32.01	32.10	32.17	32.31	4.73
ET0601	ELFSWA	Babergh	Workplace based employment	37.19	37.71	37.93	37.91	38.28	38.76	39.16	39.50	39.79	40.03	40.27	40.50	40.74	40.93	41.07	41.26	41.43	41.53	41.63	41.74	41.79	41.84	41.97	4.78
ET0601	ELFS	Babergh	Residence based employment	41.98	42.67	42.50	42.61	42.75	42.99	43.30	43.59	43.84	44.04	44.23	44.42	44.65	44.97	45.33	45.68	45.92	46.10	46.27	46.46	46.64	46.84	47.04	5.06
ET0601	U	Babergh	Unemployment	1.90	1.60	1.25	1.31	1.34	1.36	1.38	1.39	1.38	1.37	1.38	1.38	1.41	1.43	1.45	1.43	1.43	1.43	1.44	1.44	1.45	1.46	1.47	-0.43
ET0601	NET_COMMUTING	Babergh	Net commuting balance (inflow)	-4.79	-4.96	-4.57	-4.70	-4.47	-4.23	-4.14	-4.10	-4.05	-4.01	-3.96	-3.92	-3.90	-4.04	-4.26	-4.42	-4.49	-4.58	-4.64	-4.72	-4.85	-5.00	-5.07	-0.28
ET0601	UR	Babergh	Unemployment Rate	4.32	3.61	2.86	2.99	3.03	3.07	3.09	3.08	3.04	3.03	3.03	3.02	3.07	3.08	3.11	3.03	3.02	3.01	3.01	3.01	3.02	3.02	3.02	-1.30
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0601	WAFF	Babergh	Agriculture, Forestry & Fishing WFJ	1.0	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	-0.12
ET0601	WEXT	Babergh	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
ET0601	WMAN	Babergh	Manufacturing WFJ	6.1	6.0	5.9	5.8	5.8	5.7	5.7	5.7	5.6	5.5	5.4	5.4	5.3	5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	-1.81
ET0601	WUTL	Babergh	Utilities WFJ	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	-0.05
ET0601	WCON	Babergh	Construction WFJ	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9	3.9	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.3	4.4	4.4	4.4	1.56
ET0601	WDIS	Babergh	Wholesale & Retail WFJ	6.7	6.9	6.8	6.8	6.8	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	0.24
ET0601	WTRS	Babergh	Transport & storage WFJ	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.09
ET0601	WAFR	Babergh	Accomodation, Food Services & Recreation W	3.4	3.5	3.7	3.7	3.8	3.9	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.7	1.24
ET0601	WICO	Babergh	Information & communication WFJ	0.9	1.0	1.1	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.00
ET0601	WFIN	Babergh	Finance & Insurance WFJ	0.5	0.5	0.5	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.81
ET0601	WPRI	Babergh	Professional & Other Private Services WFJ	6.8	7.1	7.1	7.2	7.3	7.5	7.6	7.8	7.9	8.0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	8.9	9.0	9.1	2.31
ET0601	WPUB	Babergh	Public Services WFJ	7.7	7.6	7.8	7.6	7.7	7.8	7.9	7.9	8.0	8.1	8.2	8.2	8.3	8.3	8.4	8.4	8.5	8.5	8.5	8.6	8.6	8.6	8.7	0.94

APPENDIX H
EEFM EXPERIAN SCENARIO (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0603	LF	Ipswich	Labour Force	71.54	71.69	70.73	70.68	70.60	71.02	71.62	72.23	72.80	73.21	73.59	73.95	74.39	74.88	75.40	75.82	76.14	76.45	76.75	77.05	77.36	77.70	78.09	6.55
ET0603	LF16_64	Ipswich	Labour Force - 16 to 64	69.78	69.50	68.30	68.09	67.91	68.17	68.63	69.08	69.49	69.73	69.95	70.14	70.33	70.53	70.71	70.86	70.91	70.99	71.09	71.21	71.31	71.47	71.66	1.88
ET0603	LF65P	Ipswich	Labour Force - 65 Plus	1.76	2.18	2.42	2.59	2.70	2.85	2.99	3.15	3.31	3.48	3.64	3.82	4.07	4.36	4.69	4.97	5.23	5.45	5.65	5.85	6.05	6.23	6.43	4.67
ET0603	POPPR	Ipswich	Population - retired	23.26	22.87	22.71	22.83	22.98	22.99	22.60	22.84	23.30	23.82	24.36	24.91	25.20	25.09	25.11	25.63	26.25	26.90	27.58	28.17	28.73	29.29	29.87	6.62
ET0603	POPPS	Ipswich	Population - student	26.80	26.99	27.19	27.51	27.87	28.17	28.33	28.44	28.47	28.50	28.45	28.40	28.27	28.13	27.96	27.85	27.80	27.78	27.75	27.72	27.69	27.67	27.67	0.87
ET0603	POPP16P	Ipswich	Population - 16 Plus	108.22	108.77	109.29	109.69	110.04	110.42	110.93	111.46	112.08	112.66	113.30	113.92	114.61	115.29	116.00	116.65	117.23	117.77	118.33	118.90	119.48	120.04	120.59	12.37
ET0603	POPP16_64	Ipswich	Population - 16 to 64	86.80	87.03	87.17	87.22	87.17	87.08	87.16	87.24	87.34	87.37	87.45	87.53	87.63	87.73	87.79	87.76	87.62	87.55	87.51	87.46	87.40	87.40	87.39	0.59
ET0603	POPP65P	Ipswich	Population - 65 Plus	21.42	21.74	22.12	22.47	22.87	23.35	23.77	24.22	24.74	25.29	25.85	26.39	26.98	27.56	28.21	28.89	29.61	30.23	30.83	31.44	32.08	32.65	33.19	11.77
ET0603	POPPTOT	Ipswich	Total Population	135.02	135.76	136.49	137.21	137.92	138.59	139.26	139.91	140.55	141.16	141.75	142.32	142.88	143.42	143.96	144.49	145.02	145.55	146.08	146.62	147.17	147.72	148.26	13.24
ET0603	POPPWA	Ipswich	Working Age Population	84.97	85.90	86.59	86.87	87.07	87.43	88.32	88.62	88.78	88.85	88.94	89.01	89.41	90.20	90.89	91.02	90.97	90.87	90.75	90.74	90.75	90.75	90.72	5.75
ET0603	PRT16P	Ipswich	Economic Activity Rate (%) - 16+	66.10	65.91	64.71	64.43	64.16	64.31	64.57	64.80	64.95	64.98	64.95	64.92	64.91	64.95	65.00	65.00	64.95	64.91	64.86	64.80	64.75	64.73	64.76	-1.34
ET0603	PRT16_64	Ipswich	Economic Activity Rate (%) - 16 to 64	80.39	79.86	78.36	78.07	77.90	78.29	78.74	79.18	79.56	79.82	79.99	80.13	80.26	80.39	80.55	80.74	80.93	81.10	81.24	81.41	81.58	81.77	82.00	1.61
ET0603	PRT65P	Ipswich	Economic Activity Rate (%) - 65 Plus	8.20	10.05	10.96	11.52	11.79	12.20	12.60	13.02	13.38	13.76	14.09	14.46	15.07	15.81	16.62	17.19	17.68	18.03	18.34	18.60	18.88	19.09	19.36	11.16
ET0603	PRTWA	Ipswich	Economic Activity Rate (%) - Working Age	84.19	83.45	81.69	81.37	81.09	81.23	81.09	81.51	82.00	82.40	82.75	83.09	83.21	83.02	82.96	83.31	83.70	84.12	84.57	84.92	85.24	85.62	86.08	1.89
ET0603	W	Ipswich	Workforce Jobs	80.94	81.92	83.51	81.49	81.30	81.71	82.48	83.13	83.92	84.56	85.13	85.69	86.37	87.15	87.98	88.72	89.29	89.85	90.45	91.10	91.75	92.43	93.14	12.20
ET0603	WZP	Ipswich	Jobs Demand	80.98	81.92	83.54	81.49	81.30	81.71	82.48	83.13	83.92	84.56	85.33	86.20	87.05	87.82	88.61	89.39	90.18	90.85	91.54	92.25	92.94	93.62	94.23	13.26
ET0603	EXJ	Ipswich	Excess Jobs	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.51	0.68	0.67	0.63	0.68	0.89	1.00	1.09	1.15	1.19	1.19	1.09	1.05
ET0603	FTE	Ipswich	FTE jobs	58.15	58.82	59.74	58.44	58.45	58.88	59.57	60.18	60.80	61.29	61.76	62.18	62.65	63.18	63.74	64.25	64.72	65.19	65.68	66.19	66.69	67.22	67.76	9.62
ET0603	ELFSWA	Ipswich	Workplace based employment	74.15	75.06	75.96	73.57	73.36	73.68	74.36	74.98	75.71	76.31	76.88	77.46	78.16	78.97	79.81	80.57	81.19	81.78	82.39	83.02	83.65	84.32	85.02	10.88
ET0603	ELFS	Ipswich	Residence based employment	66.70	67.31	67.60	65.94	66.55	67.72	68.28	68.82	69.41	69.84	70.21	70.56	70.96	71.42	71.91	72.35	72.66	72.96	73.24	73.53	73.82	74.14	74.50	7.80
ET0603	U	Ipswich	Unemployment	4.83	4.38	3.13	4.74	4.06	3.29	3.35	3.41	3.39	3.37	3.38	3.39	3.44	3.46	3.49	3.47	3.48	3.49	3.51	3.52	3.54	3.56	3.59	-1.25
ET0603	NET_COMMUTING	Ipswich	Net commuting balance (inflow)	7.45	7.75	8.36	7.64	6.81	5.95	6.09	6.16	6.31	6.47	6.66	6.90	7.20	7.55	7.90	8.22	8.53	8.82	9.15	9.48	9.83	10.19	10.53	3.08
ET0603	UR	Ipswich	Unemployment Rate	6.76	6.11	4.42	6.71	5.75	4.64	4.67	4.73	4.66	4.60	4.59	4.59	4.62	4.63	4.63	4.58	4.57	4.57	4.57	4.57	4.57	4.58	4.60	-2.16
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0603	WAFF	Ipswich	Agriculture, Forestry & Fishing WFJ	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.10
ET0603	WEXT	Ipswich	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
ET0603	WMAN	Ipswich	Manufacturing WFJ	2.7	2.6	2.5	2.8	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	-0.68
ET0603	WUTL	Ipswich	Utilities WFJ	1.2	1.2	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0	-0.14
ET0603	WCON	Ipswich	Construction WFJ	4.3	4.6	4.9	3.9	4.0	4.0	4.2	4.3	4.3	4.4	4.5	4.6	4.7	4.8	4.8	4.9	5.0	5.1	5.2	5.2	5.3	5.3	5.4	1.07
ET0603	WDIS	Ipswich	Wholesale & Retail WFJ	11.2	11.4	11.3	11.7	11.7	11.7	11.7	11.7	11.8	11.9	11.9	11.9	12.0	12.1	12.1	12.2	12.2	12.3	12.3	12.4	12.4	12.5	12.6	1.34
ET0603	WTRS	Ipswich	Transport & storage WFJ	4.8	4.8	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.6	5.6	5.6	0.80
ET0603	WAFR	Ipswich	Accomodation, Food Services & Recreation W	6.8	7.0	7.4	7.0	7.0	7.2	7.3	7.5	7.6	7.7	7.9	8.0	8.1	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	2.36
ET0603	WICO	Ipswich	Information & communication WFJ	2.2	2.4	2.6	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	0.04
ET0603	WFIN	Ipswich	Finance & Insurance WFJ	7.4	7.2	7.0	7.1	7.0	7.0	7.0	7.0	7.1	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	-0.17
ET0603	WPRI	Ipswich	Professional & Other Private Services WFJ	14.6	15.4	15.3	14.1	14.2	14.3	14.4	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.8	16.0	16.2	16.3	16.5	16.7	17.0	17.1	2.57
ET0603	WPUB	Ipswich	Public Services WFJ	25.7	25.1	25.8	26.1	26.0	26.2	26.6	26.8	27.1	27.4	27.6	27.8	28.1	28.4	28.7	29.0	29.2	29.4	29.7	29.9	30.2	30.4	30.7	5.07

APPENDIX H
EEFM EXPERIAN SCENARIO (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-36
ET0604	LF	Mid Suffolk	Labour Force	52.3	52.7	52.2	52.2	52.5	52.8	53.2	53.6	53.9	54.2	54.5	54.8	55.1	55.4	55.8	56.0	56.2	56.4	56.6	56.8	56.9	57.2	57.4	5.1
ET0604	LF16_64	Mid Suffolk	Labour Force - 16 to 64	49.7	49.8	49.6	49.6	49.7	49.9	50.1	50.3	50.5	50.6	50.7	50.8	50.8	50.9	50.9	50.9	50.8	50.7	50.6	50.6	50.6	50.7	50.8	1.1
ET0604	LF65P	Mid Suffolk	Labour Force - 65 Plus	2.6	2.9	2.5	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.8	4.0	4.2	4.5	4.9	5.2	5.4	5.7	5.9	6.1	6.3	6.5	6.6	4.0
ET0604	POPPR	Mid Suffolk	Population - retired	24.4	24.3	24.5	24.9	25.2	25.4	25.2	25.6	26.1	26.8	27.5	28.1	28.5	28.5	28.6	29.2	29.9	30.7	31.5	32.2	32.9	33.5	34.2	9.8
ET0604	POPPS	Mid Suffolk	Population - student	17.5	17.5	17.5	17.5	17.6	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.6	17.6	17.5	17.5	17.6	17.6	17.6	17.6	17.6	17.6	17.6	0.0
ET0604	POPP16P	Mid Suffolk	Population - 16 Plus	81.5	82.2	82.9	83.5	84.1	84.7	85.3	86.0	86.7	87.3	88.0	88.6	89.3	89.9	90.5	91.1	91.6	92.1	92.6	93.1	93.7	94.2	94.6	13.1
ET0604	POPP16_64	Mid Suffolk	Population - 16 to 64	59.0	59.1	59.0	59.0	58.9	58.9	59.0	59.0	59.1	59.0	59.0	59.0	58.9	58.8	58.6	58.4	58.1	57.8	57.5	57.4	57.2	57.1	57.0	-2.0
ET0604	POPP65P	Mid Suffolk	Population - 65 Plus	22.5	23.2	23.9	24.5	25.1	25.8	26.4	26.9	27.6	28.3	29.0	29.6	30.4	31.1	31.9	32.7	33.5	34.3	35.1	35.8	36.4	37.0	37.6	15.1
ET0604	POPPTOT	Mid Suffolk	Total Population	99.1	99.7	100.3	101.0	101.6	102.3	103.0	103.7	104.4	105.1	105.7	106.3	106.9	107.5	108.1	108.6	109.2	109.7	110.2	110.7	111.2	111.7	112.2	13.1
ET0604	POPPWA	Mid Suffolk	Working Age Population	57.2	57.9	58.4	58.7	59.1	59.6	60.7	61.1	61.4	61.4	61.4	61.4	61.6	62.3	62.8	62.7	62.5	62.2	62.0	61.7	61.5	61.4	61.2	4.1
ET0604	PRT16P	Mid Suffolk	Economic Activity Rate (%) - 16+	64.1	64.0	62.9	62.6	62.6	62.7	62.8	62.9	62.9	62.8	62.6	62.5	62.3	62.3	62.2	62.2	62.0	61.8	61.7	61.5	61.4	61.3	61.2	-2.9
ET0604	PRT16_64	Mid Suffolk	Economic Activity Rate (%) - 16 to 64	84.1	84.3	84.1	84.1	84.3	84.7	84.9	85.1	85.4	85.7	85.9	86.1	86.3	86.5	86.8	87.1	87.4	87.7	88.0	88.2	88.5	88.7	89.0	4.9
ET0604	PRT65P	Mid Suffolk	Economic Activity Rate (%) - 65 Plus	11.7	12.4	10.5	10.7	11.0	11.4	11.9	12.3	12.6	12.9	13.1	13.4	14.0	14.6	15.3	15.8	16.2	16.6	16.9	17.1	17.4	17.5	17.7	6.0
ET0604	W	Mid Suffolk	Workforce Jobs	42.8	43.5	44.4	44.7	45.2	45.8	46.3	46.6	47.0	47.2	47.5	47.7	48.0	48.3	48.6	48.8	49.0	49.2	49.4	49.7	50.0	50.2	50.4	7.6
ET0604	WZP	Mid Suffolk	Jobs Demand	42.8	43.5	44.4	45.5	45.8	46.0	46.3	46.6	47.0	47.2	47.5	47.7	48.0	48.3	48.6	48.8	49.0	49.2	49.4	49.7	50.0	50.2	50.4	7.6
ET0604	EXJ	Mid Suffolk	Excess Jobs	0.0	0.0	0.0	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET0604	FTE	Mid Suffolk	FTE jobs	32.9	33.2	33.8	34.1	34.5	35.0	35.4	35.8	36.0	36.2	36.4	36.6	36.7	36.9	37.1	37.3	37.4	37.6	37.8	38.0	38.2	38.4	38.6	5.7
ET0604	ELFSWA	Mid Suffolk	Workplace based employment	44.1	44.4	44.9	44.9	45.4	45.9	46.4	46.8	47.1	47.4	47.7	48.0	48.3	48.6	48.9	49.2	49.5	49.8	50.0	50.3	50.6	50.8	51.1	6.9
ET0604	ELFS	Mid Suffolk	Residence based employment	51.2	51.1	50.4	50.5	50.8	51.1	51.6	51.9	52.3	52.6	52.9	53.1	53.3	53.6	53.9	54.1	54.3	54.4	54.5	54.7	54.8	55.0	55.2	4.0
ET0604	U	Mid Suffolk	Unemployment	1.1	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2	1.1
ET0604	NET_COMMUTING	Mid Suffolk	Net commuting balance (inflow)	-7.1	-6.7	-5.5	-5.6	-5.4	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	-5.1	-5.1	-5.0	-5.0	-4.9	-4.8	-4.7	-4.5	-4.4	-4.3	-4.2	-4.1	3.0
ET0604	UR	Mid Suffolk	Unemployment Rate	2.0	3.0	3.3	3.2	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.1	3.2	3.3	3.4	3.4	3.5	3.6	3.7	3.7	3.8	3.8	1.8
ET	W	East of England	Workforce Jobs	3027.4	3090.2	3144.5	3153.7	3167.9	3185.8	3205.1	3225.6	3253.7	3283.3	3308.7	3332.0	3356.3	3382.1	3408.9	3435.8	3459.5	3482.2	3505.2	3527.9	3550.5	3572.8	3595.1	567.7
UK	WJ	United Kingdom	Workforce Jobs	33509.3	33950.0	34404.8	34455.2	34583.6	34745.2	34917.2	35103.6	35377.4	35668.7	35912.9	36131.3	36357.5	36598.9	36850.3	37098.1	37312.8	37517.6	37721.2	37923.3	38122.2	38318.7	38515.9	5006.6
																											0.0
ET0604	WAFF	Mid Suffolk	Agriculture, Forestry & Fishing WFJ	2.2	2.2	2.4	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	-0.5
ET0604	WEXT	Mid Suffolk	Extraction & Mining WFJ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
ET0604	WMAN	Mid Suffolk	Manufacturing WFJ	5.3	5.2	5.2	4.7	4.7	4.6	4.6	4.5	4.4	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.2	-2.1
ET0604	WUTL	Mid Suffolk	Utilities WFJ	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
ET0604	WCON	Mid Suffolk	Construction WFJ	5.0	5.4	5.6	6.3	6.4	6.6	6.8	7.0	7.1	7.3	7.4	7.5	7.6	7.8	7.9	8.0	8.1	8.3	8.3	8.4	8.5	8.6	8.7	3.7
ET0604	WDIS	Mid Suffolk	Wholesale & Retail WFJ	5.3	5.4	5.4	5.3	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.7	5.7	5.7	5.7	0.4
ET0604	WTRS	Mid Suffolk	Transport & storage WFJ	3.5	3.4	3.7	3.7	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	0.5
ET0604	WAFR	Mid Suffolk	Accomodation, Food Services & Recreation W	3.1	3.2	3.3	3.1	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	4.0	4.0	4.0	4.1	4.1	1.0
ET0604	WICO	Mid Suffolk	Information & communication WFJ	1.0	1.1	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.0
ET0604	WFIN	Mid Suffolk	Finance & Insurance WFJ	0.3	0.3	0.3	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5
ET0604	WPRI	Mid Suffolk	Professional & Other Private Services WFJ	7.3	7.6	7.5	7.1	7.2	7.3	7.5	7.6	7.7	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.9	9.0	9.1	1.7
ET0604	WPUB	Mid Suffolk	Public Services WFJ	9.3	9.1	9.4	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.0	11.1	11.2	11.3	11.3	11.4	11.4	11.5	11.6	11.6	11.7	2.4

APPENDIX H
EEFM EXPERIAN SCENARIO (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0606	LF	Suffolk Coastal	Labour Force	63.77	62.53	62.00	61.97	61.90	62.15	62.49	62.86	63.13	63.39	63.63	63.86	64.23	64.70	65.22	65.60	65.88	66.12	66.34	66.55	66.76	66.98	67.22	3.45
ET0606	LF16_64	Suffolk Coastal	Labour Force - 16 to 64	59.32	57.74	55.89	55.68	55.38	55.37	55.43	55.49	55.47	55.39	55.28	55.13	54.93	54.73	54.51	54.23	53.96	53.69	53.46	53.29	53.14	53.06	52.99	-6.34
ET0606	LF65P	Suffolk Coastal	Labour Force - 65 Plus	4.45	4.79	6.11	6.29	6.52	6.78	7.06	7.37	7.66	7.99	8.35	8.73	9.31	9.98	10.71	11.37	11.93	12.43	12.87	13.26	13.62	13.92	14.23	9.79
ET0606	POPPR	Suffolk Coastal	Population - retired	34.93	34.74	34.81	35.20	35.60	35.72	35.33	35.78	36.49	37.28	38.11	38.92	39.41	39.37	39.50	40.33	41.23	42.20	43.15	44.04	44.89	45.66	46.39	11.46
ET0606	POPPS	Suffolk Coastal	Population - student	21.17	20.97	20.85	20.86	20.93	20.93	20.91	20.84	20.77	20.66	20.52	20.41	20.27	20.12	20.02	19.98	19.92	19.90	19.87	19.83	19.79	19.74	19.70	-1.47
ET0606	POPP16P	Suffolk Coastal	Population - 16 Plus	103.57	103.87	104.16	104.38	104.60	104.94	105.37	105.88	106.39	106.93	107.49	108.03	108.58	109.15	109.67	110.13	110.59	111.04	111.50	111.98	112.45	112.91	113.33	9.76
ET0606	POPP16_64	Suffolk Coastal	Population - 16 to 64	71.14	70.66	70.16	69.63	69.13	68.76	68.51	68.29	68.00	67.71	67.44	67.12	66.76	66.38	65.95	65.39	64.86	64.35	63.92	63.56	63.24	62.99	62.70	-8.44
ET0606	POPP65P	Suffolk Coastal	Population - 65 Plus	32.43	33.21	34.00	34.75	35.47	36.17	36.86	37.59	38.39	39.23	40.06	40.91	41.83	42.77	43.72	44.74	45.74	46.69	47.59	48.42	49.21	49.92	50.63	18.20
ET0606	POPPTOT	Suffolk Coastal	Total Population	124.74	124.84	125.02	125.24	125.53	125.87	126.27	126.72	127.16	127.59	128.02	128.44	128.86	129.27	129.70	130.11	130.52	130.94	131.37	131.80	132.23	132.65	133.03	8.29
ET0606	POPPWA	Suffolk Coastal	Working Age Population	68.64	69.13	69.36	69.18	69.00	69.22	70.04	70.10	69.90	69.65	69.39	69.11	69.17	69.78	70.18	69.80	69.36	68.84	68.36	67.93	67.56	67.25	66.94	-1.70
ET0606	PRT16P	Suffolk Coastal	Economic Activity Rate (%) - 16+	61.57	60.20	59.52	59.37	59.18	59.23	59.31	59.37	59.34	59.28	59.19	59.12	59.16	59.28	59.47	59.56	59.57	59.55	59.49	59.43	59.37	59.32	59.31	-2.26
ET0606	PRT16_64	Suffolk Coastal	Economic Activity Rate (%) - 16 to 64	83.39	81.72	79.66	79.97	80.12	80.52	80.91	81.26	81.58	81.82	81.98	82.14	82.28	82.44	82.66	82.93	83.19	83.44	83.65	83.83	84.03	84.24	84.50	1.11
ET0606	PRT65P	Suffolk Coastal	Economic Activity Rate (%) - 65 Plus	13.71	14.42	17.97	18.10	18.37	18.74	19.16	19.60	19.94	20.38	20.84	21.34	22.25	23.33	24.49	25.41	26.08	26.62	27.05	27.40	27.67	27.88	28.12	14.41
ET0606	PRTWA	Suffolk Coastal	Economic Activity Rate (%) - Working Age	92.90	90.46	89.39	89.58	89.70	89.79	89.23	89.67	90.32	91.01	91.70	92.41	92.86	92.73	92.94	93.98	94.98	96.05	97.05	97.96	98.81	99.59	100.42	7.52
ET0606	W	Suffolk Coastal	Workforce Jobs	59.06	60.45	62.50	62.48	62.64	62.97	63.32	63.61	63.97	64.36	64.70	65.03	65.46	65.89	66.23	66.57	66.90	67.20	67.54	67.86	68.13	68.45	68.75	9.69
ET0606	WZP	Suffolk Coastal	Jobs Demand	59.07	60.45	62.61	62.48	62.64	62.97	63.32	63.61	63.97	64.36	64.70	65.03	65.46	65.89	66.23	66.57	66.90	67.20	67.54	67.86	68.13	68.45	68.75	9.69
ET0606	EXJ	Suffolk Coastal	Excess Jobs	0.01	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
ET0606	FTE	Suffolk Coastal	FTE jobs	45.14	46.22	47.56	47.74	47.94	48.27	48.66	49.01	49.33	49.65	49.96	50.23	50.55	50.86	51.11	51.37	51.68	51.98	52.30	52.61	52.86	53.14	53.42	8.28
ET0606	ELFSWA	Suffolk Coastal	Workplace based employment	54.83	55.44	55.90	55.43	55.54	55.78	56.08	56.34	56.67	57.02	57.34	57.67	58.10	58.54	58.90	59.26	59.60	59.91	60.25	60.56	60.82	61.12	61.41	6.59
ET0606	ELFS	Suffolk Coastal	Residence based employment	61.59	60.74	60.39	59.50	59.70	60.08	60.41	60.73	61.04	61.32	61.56	61.79	62.11	62.56	63.05	63.47	63.74	63.98	64.19	64.39	64.60	64.80	65.03	3.45
ET0606	U	Suffolk Coastal	Unemployment	2.18	1.79	1.61	2.47	2.19	2.07	2.08	2.13	2.10	2.07	2.07	2.08	2.13	2.15	2.17	2.13	2.14	2.14	2.15	2.16	2.16	2.17	2.19	0.00
ET0606	NET_COMMUTING	Suffolk Coastal	Net commuting balance (inflow)	-6.76	-5.30	-4.48	-4.07	-4.16	-4.29	-4.33	-4.39	-4.37	-4.31	-4.22	-4.12	-4.01	-4.02	-4.14	-4.21	-4.14	-4.07	-3.94	-3.84	-3.78	-3.69	-3.62	3.14
ET0606	UR	Suffolk Coastal	Unemployment Rate	3.42	2.87	2.60	3.99	3.54	3.33	3.33	3.39	3.32	3.26	3.25	3.25	3.31	3.32	3.33	3.25	3.25	3.24	3.24	3.24	3.24	3.24	3.25	-0.17
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0606	WAFF	Suffolk Coastal	Agriculture, Forestry & Fishing WFJ	2.2	2.4	2.6	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.5	-0.70
ET0606	WEXT	Suffolk Coastal	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.02
ET0606	WMAN	Suffolk Coastal	Manufacturing WFJ	3.2	3.2	3.1	3.2	3.2	3.1	3.1	3.0	3.0	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.3	-0.87
ET0606	WUTL	Suffolk Coastal	Utilities WFJ	1.1	1.1	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-0.12
ET0606	WCON	Suffolk Coastal	Construction WFJ	3.1	3.4	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9	0.79
ET0606	WDIS	Suffolk Coastal	Wholesale & Retail WFJ	7.7	7.9	7.8	8.0	8.0	8.0	8.0	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4	8.4	0.67
ET0606	WTRS	Suffolk Coastal	Transport & storage WFJ	9.2	9.2	9.9	10.3	10.3	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.5	10.5	10.5	10.6	10.6	10.7	10.7	10.7	10.8	10.8	1.59
ET0606	WAFR	Suffolk Coastal	Accomodation, Food Services & Recreation W	6.4	6.7	7.0	7.3	7.4	7.6	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.4	9.5	3.11
ET0606	WICO	Suffolk Coastal	Information & communication WFJ	4.1	4.6	5.0	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	-0.75
ET0606	WFIN	Suffolk Coastal	Finance & Insurance WFJ	0.5	0.5	0.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.76
ET0606	WPRI	Suffolk Coastal	Professional & Other Private Services WFJ	8.3	8.6	8.6	9.0	9.1	9.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	2.78
ET0606	WPUB	Suffolk Coastal	Public Services WFJ	13.2	12.9	13.2	13.4	13.4	13.5	13.6	13.7	13.8	14.0	14.1	14.2	14.4	14.5	14.7	14.8	14.9	15.0	15.1	15.3	15.4	15.5	15.6	2.44

APPENDIX H
EEFM EXPERIAN SCENARIO (DECEMBER 2016)

Local Code	Variable Code	Local/Combined	Variable Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2014-2036
ET0607	LF	Waveney	Labour Force	51.69	52.91	53.90	53.64	53.38	53.20	53.10	53.29	53.41	53.43	53.56	53.74	53.95	54.23	54.54	54.78	54.97	55.10	55.24	55.41	55.60	55.81	56.02	4.33
ET0607	LF16_64	Waveney	Labour Force - 16 to 64	49.19	49.92	51.02	50.77	50.45	50.19	50.02	50.10	50.14	50.07	50.08	50.11	50.07	50.08	50.10	50.08	50.04	49.96	49.88	49.86	49.88	49.95	50.02	0.83
ET0607	LF65P	Waveney	Labour Force - 65 Plus	2.50	2.99	2.88	2.86	2.93	3.01	3.08	3.19	3.27	3.36	3.48	3.64	3.87	4.15	4.44	4.70	4.93	5.14	5.36	5.55	5.72	5.86	6.00	3.50
ET0607	POPPR	Waveney	Population - retired	32.21	31.82	31.65	31.79	31.96	31.90	31.38	31.52	31.95	32.38	32.86	33.34	33.60	33.41	33.37	33.92	34.51	35.16	35.81	36.48	37.14	37.72	38.25	6.04
ET0607	POPPS	Waveney	Population - student	19.86	19.88	19.87	19.97	20.07	20.15	20.24	20.35	20.43	20.44	20.39	20.34	20.32	20.24	20.16	20.09	20.06	20.06	20.04	20.03	20.00	19.99	19.97	0.12
ET0607	POPP16P	Waveney	Population - 16 Plus	96.07	96.19	96.45	96.63	96.87	97.13	97.42	97.70	98.02	98.43	98.90	99.37	99.80	100.28	100.77	101.25	101.70	102.11	102.53	102.96	103.39	103.81	104.21	8.14
ET0607	POPP16_64	Waveney	Population - 16 to 64	65.95	65.67	65.50	65.26	65.02	64.84	64.79	64.64	64.53	64.45	64.43	64.35	64.16	64.02	63.89	63.69	63.45	63.16	62.88	62.68	62.54	62.46	62.34	-3.61
ET0607	POPP65P	Waveney	Population - 65 Plus	30.12	30.53	30.95	31.37	31.85	32.29	32.64	33.06	33.49	33.98	34.47	35.02	35.64	36.26	36.89	37.56	38.25	38.95	39.65	40.28	40.86	41.36	41.88	11.75
ET0607	POPPTOT	Waveney	Total Population	115.93	116.07	116.32	116.60	116.94	117.29	117.66	118.05	118.46	118.87	119.29	119.71	120.12	120.53	120.93	121.35	121.76	122.17	122.57	122.99	123.40	123.80	124.19	8.26
ET0607	POPPWA	Waveney	Working Age Population	63.86	64.38	64.80	64.85	64.91	65.23	66.04	66.18	66.08	66.05	66.05	66.03	66.21	66.88	67.41	67.34	67.19	66.95	66.72	66.48	66.25	66.09	65.96	2.11
ET0607	PRT16P	Waveney	Economic Activity Rate (%) - 16+	53.81	55.00	55.89	55.51	55.10	54.77	54.50	54.55	54.49	54.29	54.15	54.08	54.05	54.07	54.13	54.10	54.05	53.96	53.87	53.82	53.77	53.76	53.75	-0.05
ET0607	PRT16_64	Waveney	Economic Activity Rate (%) - 16 to 64	74.60	76.01	77.90	77.80	77.59	77.40	77.20	77.50	77.70	77.69	77.72	77.86	78.04	78.22	78.42	78.63	78.87	79.10	79.33	79.55	79.76	79.98	80.24	5.64
ET0607	PRT65P	Waveney	Economic Activity Rate (%) - 65 Plus	8.29	9.79	9.30	9.13	9.19	9.32	9.45	9.66	9.78	9.90	10.09	10.38	10.87	11.45	12.04	12.51	12.88	13.20	13.51	13.78	13.99	14.16	14.33	6.04
ET0607	PRTWA	Waveney	Economic Activity Rate (%) - Working Age	80.95	82.18	83.19	82.72	82.23	81.56	80.40	80.53	80.83	80.90	81.09	81.39	81.48	81.09	80.92	81.35	81.82	82.30	82.80	83.35	83.92	84.44	84.93	3.97
ET0607	W	Waveney	Workforce Jobs	48.03	48.77	49.51	48.56	48.44	48.27	48.35	49.64	49.06	48.91	48.98	49.10	49.25	49.37	49.50	49.61	49.71	49.71	49.85	49.91	49.93	49.97	49.99	1.96
ET0607	WZP	Waveney	Jobs Demand	48.07	48.77	49.54	48.56	48.44	48.27	48.35	49.64	49.06	48.91	48.98	49.10	49.25	49.37	49.50	49.61	49.71	49.71	49.85	49.91	49.93	49.97	49.99	1.92
ET0607	EXJ	Waveney	Excess Jobs	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04
ET0607	FTE	Waveney	FTE jobs	35.53	35.74	36.11	35.50	35.48	35.40	35.53	36.54	36.12	36.00	36.05	36.13	36.20	36.25	36.31	36.37	36.46	36.48	36.63	36.71	36.76	36.81	36.85	1.32
ET0607	ELFSWA	Waveney	Workplace based employment	46.36	46.95	47.19	45.99	45.85	45.64	45.70	46.93	46.39	46.27	46.35	46.50	46.69	46.85	47.03	47.18	47.32	47.37	47.53	47.60	47.64	47.69	47.73	1.38
ET0607	ELFS	Waveney	Residence based employment	48.26	50.18	51.45	50.04	49.90	49.63	49.76	50.90	50.51	50.64	50.97	51.26	51.48	51.70	51.97	52.23	52.48	52.60	52.73	52.89	53.08	53.27	53.45	5.20
ET0607	U	Waveney	Unemployment	3.44	2.73	2.45	3.60	3.48	3.57	3.34	2.39	2.90	2.80	2.58	2.49	2.46	2.52	2.57	2.55	2.49	2.50	2.50	2.53	2.52	2.54	2.57	-0.87
ET0607	NET_COMMUTING	Waveney	Net commuting balance (inflow)	-1.90	-3.23	-4.26	-4.05	-4.05	-3.99	-4.06	-3.96	-4.11	-4.37	-4.63	-4.76	-4.79	-4.86	-4.95	-5.05	-5.16	-5.23	-5.21	-5.29	-5.44	-5.58	-5.72	-3.82
ET0607	UR	Waveney	Unemployment Rate	6.65	5.16	4.54	6.71	6.52	6.72	6.28	4.49	5.44	5.23	4.82	4.62	4.57	4.65	4.71	4.66	4.53	4.53	4.53	4.56	4.53	4.56	4.58	-2.06
ET	W	East of England	Workforce Jobs	3027.39	3090.23	3144.46	3153.72	3167.87	3185.79	3205.09	3225.59	3253.65	3283.34	3308.75	3331.96	3356.28	3382.13	3408.94	3435.83	3459.48	3482.23	3505.18	3527.94	3550.53	3572.78	3595.10	567.71
UK	WJ	United Kingdom	Workforce Jobs	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87	5006.62
ET0607	WAFF	Waveney	Agriculture, Forestry & Fishing WFJ	1.1	1.1	1.2	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	-0.72
ET0607	WEXT	Waveney	Extraction & Mining WFJ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.04
ET0607	WMAN	Waveney	Manufacturing WFJ	7.1	7.1	7.0	7.0	6.9	6.7	6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0	4.8	-2.29
ET0607	WUTL	Waveney	Utilities WFJ	0.5	0.5	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-0.12
ET0607	WCON	Waveney	Construction WFJ	3.4	3.6	3.7	3.5	3.6	3.7	3.8	3.9	4.1	4.1	4.2	4.3	4.4	4.4	4.5	4.6	4.7	4.8	4.9	4.9	5.0	5.0	5.1	1.68
ET0607	WDIS	Waveney	Wholesale & Retail WFJ	8.2	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	-0.02
ET0607	WTRS	Waveney	Transport & storage WFJ	1.7	1.8	1.9	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	0.42
ET0607	WAFR	Waveney	Accomodation, Food Services & Recreation W	5.6	5.9	6.1	6.3	6.3	6.4	6.5	6.5	6.6	6.7	6.8	6.8	6.9	7.0	7.0	7.1	7.2	7.2	7.2	7.3	7.3	7.3	7.4	1.75
ET0607	WICO	Waveney	Information & communication WFJ	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.04
ET0607	WFIN	Waveney	Finance & Insurance WFJ	0.6	0.6	0.6	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	0.65
ET0607	WPRI	Waveney	Professional & Other Private Services WFJ	7.7	8.0	7.9	7.5	7.5	7.5	7.5	7.5	7.8	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.7	7.8	7.8	7.8	7.8	7.8	7.9	0.20
ET0607	WPUB	Waveney	Public Services WFJ	11.6	11.3	11.6	11.2	11.1	11.1	11.1	12.4	11.2	11.3	11.4	11.4	11.5	11.5	11.6	11.7	11.7	11.8	11.8	11.8	11.9	11.9	12.0	0.37

APPENDIX I IPSWICH JOBS SCENARIO

APPENDIX H
IPSWICH JOBS SCENARIO (EEFM EXPERIAN SCENARIO REBALANCED)

Local Code	Variable Code	Local/Combined	Variable Name	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
ET0603	LF	Ipswich	Labour Force	64.21	64.26	65.29	67.64	69.00	69.97	69.44	70.36	71.76	72.12	71.56	71.69	70.75	71.06	71.51	71.98	72.53	73.10	73.73	74.34	74.86	75.31	75.81	76.30	76.80	77.26	77.63	77.99	78.34	78.65	78.96	79.28	79.63
ET0603	LF16_64	Ipswich	Labour Force - 16 to 64	62.65	63.27	64.20	66.33	68.02	68.98	68.29	68.88	70.19	70.69	69.80	69.50	68.32	68.46	68.78	69.09	69.50	69.92	70.39	70.84	71.20	71.48	71.73	71.93	72.10	72.27	72.38	72.53	72.68	72.80	72.90	73.04	73.20
ET0603	LF65P	Ipswich	Labour Force - 65 Plus	1.56	0.99	1.09	1.31	0.99	0.99	1.16	1.48	1.57	1.43	1.76	2.18	2.42	2.60	2.73	2.89	3.03	3.19	3.35	3.53	3.70	3.87	4.13	4.43	4.76	5.04	5.32	5.54	5.75	5.94	6.15	6.33	6.53
ET0603	POPPR	Ipswich	Population - retired	22.18	22.26	22.33	22.52	22.69	22.88	23.22	23.60	23.80	23.53	23.26	22.87	22.71	22.83	22.99	23.00	22.61	22.85	23.32	23.88	24.45	25.02	25.32	25.22	25.23	25.75	26.39	27.05	27.74	28.33	28.89	29.45	30.02
ET0603	POPPS	Ipswich	Population - student	24.61	24.58	24.48	24.38	24.62	25.06	25.59	26.06	26.44	26.56	26.80	26.99	27.20	27.52	27.89	28.18	28.34	28.45	28.49	28.56	28.54	28.51	28.39	28.25	28.07	27.96	27.92	27.92	27.90	27.87	27.84	27.82	27.81
ET0603	POPP16P	Ipswich	Population - 16 Plus	96.74	99.24	100.18	101.19	102.77	104.33	106.17	107.62	108.01	108.14	108.26	108.77	109.32	109.70	110.14	110.48	110.98	111.51	112.23	113.10	113.94	114.70	115.48	116.17	116.85	117.54	118.20	118.83	119.47	120.05	120.62	121.16	121.64
ET0603	POPP16_64	Ipswich	Population - 16 to 64	77.21	79.75	80.75	81.80	83.34	84.84	86.46	87.65	87.47	87.15	86.83	87.03	87.20	87.23	87.25	87.13	87.21	87.28	87.46	87.75	88.00	88.20	88.38	88.49	88.52	88.52	88.46	88.46	88.48	88.45	88.39	88.35	88.30
ET0603	POPP65P	Ipswich	Population - 65 Plus	19.53	19.49	19.43	19.39	19.43	19.49	19.71	19.97	20.54	20.99	21.43	21.74	22.13	22.47	22.89	23.35	23.77	24.23	24.76	25.36	25.94	26.50	27.10	27.68	28.33	29.02	29.74	30.38	30.99	31.60	32.24	32.80	33.34
ET0603	POPPTOT	Ipswich	Total Population	121.34	123.82	124.66	125.56	127.39	129.39	131.76	133.68	134.44	134.71	135.06	135.76	136.52	137.22	138.02	138.67	139.32	139.96	140.71	141.66	142.48	143.21	143.87	144.42	144.92	145.50	146.12	146.75	147.37	147.93	148.47	148.98	149.46
ET0603	POPPWA	Ipswich	Working Age Population	74.56	76.99	77.85	78.66	80.07	81.45	82.95	84.02	84.21	84.61	85.00	85.90	86.61	86.88	87.15	87.49	88.37	88.66	88.91	89.22	89.49	89.68	90.16	90.95	91.62	91.79	91.81	91.78	91.72	91.72	91.74	91.71	91.62
ET0603	PRT16P	Ipswich	Economic Activity Rate (%) - 16+	66.38	64.75	65.18	66.85	67.14	67.07	65.41	65.38	66.44	66.69	66.10	65.91	64.71	64.77	64.93	65.15	65.36	65.56	65.70	65.73	65.70	65.66	65.65	65.68	65.73	65.73	65.67	65.63	65.57	65.52	65.46	65.43	65.46
ET0603	PRT16_64	Ipswich	Economic Activity Rate (%) - 16 to 64	81.15	79.33	79.51	81.09	81.61	81.31	78.98	78.59	80.24	81.12	80.39	79.86	78.36	78.47	78.84	79.30	79.70	80.10	80.48	80.73	80.90	81.04	81.17	81.29	81.45	81.64	81.82	81.99	82.14	82.31	82.48	82.67	82.89
ET0603	PRT65P	Ipswich	Economic Activity Rate (%) - 65 Plus	7.98	5.09	5.63	6.78	5.07	5.10	5.87	7.39	7.65	6.81	8.20	10.05	10.96	11.58	11.93	12.36	12.75	13.17	13.54	13.91	14.25	14.62	15.24	15.99	16.81	17.38	17.87	18.23	18.54	18.80	19.08	19.30	19.57
ET0603	PRTWA	Ipswich	Economic Activity Rate (%) - Working Age	86.12	83.47	83.87	85.99	86.17	85.91	83.72	83.74	85.21	85.24	84.19	83.45	81.69	81.79	82.06	82.28	82.08	82.45	82.94	83.35	83.69	84.03	84.15	83.95	83.89	84.23	84.62	85.05	85.50	85.85	86.18	86.55	87.02
ET0603	W	Ipswich	Workforce Jobs	80.46	79.86	81.88	81.68	80.84	79.08	77.56	77.19	77.82	78.31	80.98	81.92	83.54	83.82	84.49	85.12	85.82	86.58	87.57	88.55	89.35	90.07	90.85	91.67	92.50	93.32	94.00	94.67	95.35	96.04	96.72	97.38	98.07
ET0603	WZP	Ipswich	Jobs Demand	80.46	79.86	81.88	81.68	80.84	79.08	77.56	77.19	77.82	78.31	80.98	81.92	83.54	83.82	84.49	85.12	85.82	86.58	87.57	88.55	89.35	90.07	90.85	91.67	92.50	93.32	94.00	94.67	95.35	96.04	96.72	97.38	98.07
ET0603	EXJ	Ipswich	Excess Jobs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ET0603	FTE	Ipswich	FTE jobs	55.70	58.50	59.82	59.63	58.44	55.97	55.24	53.57	56.23	57.87	58.17	58.82	59.76	60.11	60.74	61.33	61.99	62.68	63.44	64.19	64.82	65.36	65.90	66.45	67.01	67.58	68.13	68.69	69.24	69.78	70.31	70.82	71.34
ET0603	ELFSWA	Ipswich	Workplace based employment	70.49	70.54	70.75	70.72	71.20	69.98	70.16	71.42	72.04	72.47	74.19	75.06	75.99	76.08	76.64	77.13	77.74	78.43	79.35	80.28	81.05	81.77	82.55	83.38	84.20	85.03	85.73	86.41	87.09	87.73	88.37	89.00	89.65
ET0603	ELFS	Ipswich	Residence based employment	61.12	61.00	61.38	63.80	64.94	64.29	63.69	64.29	65.07	65.84	66.74	67.31	67.63	67.65	68.18	68.57	69.06	69.61	70.36	71.11	71.70	72.20	72.70	73.17	73.63	74.13	74.53	74.92	75.29	75.60	75.89	76.17	76.48
ET0603	U	Ipswich	Unemployment	3.09	3.26	3.92	3.85	4.06	5.69	5.76	6.06	6.69	6.28	4.82	4.38	3.12	3.41	3.33	3.40	3.47	3.49	3.37	3.23	3.15	3.11	3.11	3.13	3.17	3.13	3.10	3.07	3.05	3.06	3.07	3.10	3.15
ET0603	NET_COMMUTING	Ipswich	Net commuting balance (inflow)	9.37	9.54	9.38	6.93	6.26	5.69	6.48	7.12	6.98	6.63	7.45	7.75	8.36	8.42	8.46	8.56	8.68	8.82	8.99	9.16	9.34	9.57	9.85	10.21	10.57	10.90	11.20	11.50	11.80	12.14	12.48	12.83	13.17
ET0603	UR	Ipswich	Unemployment Rate	4.82	5.08	6.00	5.69	5.89	8.13	8.29	8.62	9.32	8.70	6.74	6.11	4.41	4.80	4.66	4.73	4.78	4.78	4.58	4.34	4.21	4.13	4.10	4.10	4.13	4.05	3.99	3.94	3.89	3.88	3.88	3.91	3.96
ET	W	East of England	Workforce Jobs	2793.13	2791.81	2888.52	2901.25	2898.72	2844.21	2823.81	2840.25	2880.84	2908.62	3027.43	3090.23	3144.49	3153.74	3167.97	3185.85	3205.15	3225.65	3253.81	3283.81	3309.44	3332.80	3357.22	3383.07	3409.86	3436.80	3460.54	3483.38	3506.41	3529.20	3551.79	3574.00	3596.27
UK	WJ	United Kingdom	Workforce Jobs	31199.00	31614.50	32006.25	32248.25	32381.25	31799.00	31620.50	31781.25	32131.25	32484.25	33509.25	33950.00	34404.79	34455.16	34583.57	34745.21	34917.18	35103.61	35377.45	35668.75	35912.93	36131.28	36357.46	36598.91	36850.31	37098.14	37312.82	37517.56	37721.22	37923.34	38122.20	38318.72	38515.87
ET0603	WAFF	Ipswich	Agriculture, Forestry & Fishing WFJ	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ET0603	WEXT	Ipswich	Extraction & Mining WFJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET0603	WMAN	Ipswich	Manufacturing WFJ	4.8	4.4	4.0	3.8	3.5	3.2	3.0	3.0	3.0	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9
ET0603	WUTL	Ipswich	Utilities WFJ	0.5	0.5	0.6	0.6	0.7	0.9	1.0	1.1	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6
ET0603	WCON	Ipswich	Construction WFJ	4.2	4.3	4.5	4.6	4.6	4.7	4.3	4.3	4.0	4.1	4.3	4.6	4.9	4.9	4.9	4.9	5.0	5.0	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.5	5.5	5.5	5.6	5.6	5.6	5.7	5.7
ET0603	WDIS	Ipswich	Wholesale & Retail WFJ	13.6	13.3	13.2	12.9	12.6	11.9	12.0	12.0	11.5	11.2	11.2	11.4	11.4	11.4	11.5	11.5	11.6	11.6	11.7	11.8	11.9	11.9	11.9	12.0	12.0	12.1	12.1	12.1	12.1	12.1	12.1	12.2	12.2
ET0603	WTRS	Ipswich	Transport & storage WFJ	5.3	5.4	5.4	5.3	5.1	5.3	4.9	4.8	5.0	4.9	4.8	4.8	5.2	5.2	5.2	5.3	5.3	5.3	5.4	5.5	5.5	5.6	5.7	5.8	5.8	5.9	6.0	6.1	6.2	6.3	6.3	6.4	6.5
ET0603	WAFR	Ipswich	Accomodation, Food Services & Recreation V	7.2	6.7	7.0	6.6	6.7	6.2	6.1	6.4	6.5	6.2	6.8	7.0	7.4	7.5	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.1	9.2	9.3	9.4
ET0603	WICO	Ipswich	Information & communication WFJ	3.3	3.1	3.1	2.5	2.3	2.2	2.0	2.0	2.1	2.1	2.2	2.4	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0
ET0603	WFIN	Ipswich	Finance & Insurance WFJ	5.6	5.7	5.9	6.5	6.7	6.8	6.4	6.5	6.8	6.9	7.4	7.2	7.0	7.1	7.2	7.3	7.3	7.4	7.4	7.5	7.5	7.6	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.0	8.1	8.1	8.2
ET0603	WPRI	Ipswich	Professional & Other Private Services WFJ	12.9	13.0	13.3	13.7	13.8	12.8	12.6	12.1	12.8	13.6	14.6	15.4	15.3	15.3	15.5	15.6	15.7	15.8	15.9	16.1	16.2	16.4	16.5	16.6	16.8	16.9	17.1	17.2	17.3	17.5	17.6	17.8	17.9
ET0603	WPUB	Ipswich	Public Services WFJ	22.8	23.3	24.5	25.0	24.6	24.9	25.2	25.0	24.8	25.3	25.7	25.1	25.8	25.8	25.8	26.1	26.4	26.7	27.2	27.6	28.0	28.3	28.6	28.9	29.3	29.6	29.9	30.2	30.4	30.7	31.0	31.2	31.5

APPENDIX J WAVENEY OFF-SHORE SCENARIO

APPENDIX I
WAVENEY OFF-SHORE SCENARIO

Local Code	Variable Code	Local/Combined	Variable Name	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
ET0607	LF	Waveney	Labour Force	53.90	53.90	54.10	54.30	54.50	54.70	54.80	55.00	55.30	55.50	55.70	56.00	56.40	56.60	56.80	56.90	57.00	57.20	57.40	57.70	57.90
ET0607	LF16_64	Waveney	Labour Force - 16 to 64	51.00	51.10	51.10	51.20	51.40	51.40	51.50	51.60	51.70	51.70	51.70	51.70	51.80	51.80	51.70	51.60	51.50	51.50	51.50	51.60	51.70
ET0607	LF65P	Waveney	Labour Force - 65 Plus	2.90	2.90	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.80	4.00	4.30	4.60	4.90	5.10	5.30	5.50	5.70	5.90	6.10	6.20
ET0607	POPPR	Waveney	Population - retired	31.60	31.80	32.00	31.90	31.40	31.50	31.90	32.40	32.90	33.30	33.60	33.40	33.40	33.90	34.50	35.20	35.80	36.50	37.10	37.70	38.30
ET0607	POPPS	Waveney	Population - student	19.90	20.00	20.10	20.20	20.20	20.40	20.40	20.40	20.40	20.30	20.30	20.20	20.20	20.10	20.10	20.10	20.00	20.00	20.00	20.00	20.00
ET0607	POPP16P	Waveney	Population - 16 Plus	96.40	96.60	96.90	97.10	97.40	97.70	98.00	98.40	98.90	99.40	99.80	100.30	100.80	101.30	101.70	102.10	102.50	103.00	103.40	103.80	104.20
ET0607	POPP16_64	Waveney	Population - 16 to 64	65.50	65.30	65.00	64.80	64.80	64.60	64.50	64.40	64.40	64.40	64.20	64.00	63.90	63.70	63.50	63.20	62.90	62.70	62.50	62.50	62.30
ET0607	POPP65P	Waveney	Population - 65 Plus	30.90	31.40	31.90	32.30	32.60	33.10	33.50	34.00	34.50	35.00	35.60	36.30	36.90	37.60	38.20	39.00	39.70	40.30	40.90	41.40	41.90
ET0607	POPPTOT	Waveney	Total Population	116.30	116.60	116.90	117.30	117.70	118.10	118.50	118.90	119.30	119.70	120.10	120.50	120.90	121.30	121.80	122.20	122.60	123.00	123.40	123.80	124.20
ET0607	POPPWA	Waveney	Working Age Population	64.80	64.80	64.90	65.20	66.00	66.20	66.10	66.00	66.00	66.00	66.20	66.90	67.40	67.30	67.20	66.90	66.70	66.50	66.30	66.10	66.00
ET0607	PRT16P	Waveney	Economic Activity Rate (%) - 16+	55.90	55.80	55.80	55.90	56.00	55.90	55.90	55.90	55.90	55.90	55.80	55.90	55.90	55.90	55.80	55.70	55.60	55.60	55.50	55.50	55.60
ET0607	PRT16_64	Waveney	Economic Activity Rate (%) - 16 to 64	77.90	78.20	78.60	79.00	79.30	79.50	79.80	80.00	80.20	80.40	80.60	80.80	81.00	81.30	81.50	81.70	81.90	82.10	82.40	82.60	82.90
ET0607	PRT65P	Waveney	Economic Activity Rate (%) - 65 Plus	9.30	9.20	9.30	9.50	9.70	9.90	10.00	10.20	10.40	10.70	11.20	11.80	12.40	12.90	13.30	13.60	14.00	14.20	14.50	14.60	14.80
ET0607	PRTWA	Waveney	Economic Activity Rate (%) - Working Age	83.20	83.20	83.30	83.30	82.60	82.60	83.00	83.30	83.70	84.10	84.20	83.80	83.60	84.10	84.50	85.00	85.50	86.10	86.70	87.20	87.80
ET0607	W	Waveney	Workforce Jobs	49.60	49.70	49.80	50.00	50.00	50.00	50.50	50.90	51.20	51.50	51.90	52.20	52.50	52.60	52.50	52.60	52.70	52.80	52.90	53.00	53.10
ET0607	WZP	Waveney	Jobs Demand	49.60	49.70	49.80	50.00	50.00	50.00	50.50	51.00	51.50	52.00	52.10	52.30	52.50	52.60	52.50	52.60	52.70	52.80	53.00	53.10	53.10
ET0607	EXJ	Waveney	Excess Jobs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.30	0.40	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ET0607	FTE	Waveney	FTE jobs	36.20	36.30	36.50	36.70	36.70	36.80	37.20	37.40	37.70	37.90	38.10	38.30	38.50	38.50	38.50	38.60	38.70	38.90	39.00	39.10	39.20
ET0607	ELFSWA	Waveney	Workplace based employment	47.20	47.20	47.30	47.40	47.40	47.40	47.80	48.20	48.60	48.90	49.20	49.60	49.90	50.10	50.10	50.20	50.30	50.40	50.50	50.60	50.80
ET0607	ELFS	Waveney	Residence based employment	51.50	51.40	51.50	51.60	51.70	51.80	52.20	52.50	52.80	53.00	53.20	53.40	53.70	54.00	54.10	54.30	54.40	54.60	54.80	55.10	55.30
ET0607	U	Waveney	Unemployment	2.40	2.60	2.60	2.70	2.90	2.90	2.60	2.50	2.50	2.50	2.50	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
ET0607	NET_COMMUTING	Waveney	Net commuting balance (inflow)	-4.30	-4.20	-4.20	-4.20	-4.30	-4.40	-4.40	-4.30	-4.20	-4.10	-4.00	-3.80	-3.80	-3.90	-4.00	-4.10	-4.10	-4.20	-4.30	-4.50	-4.50
ET0607	UR	Waveney	Unemployment Rate	4.50	4.70	4.90	5.00	5.20	5.30	4.70	4.60	4.60	4.50	4.60	4.60	4.60	4.60	4.70	4.50	4.50	4.50	4.50	4.50	4.50
ET	W	East of England	Workforce Jobs	3144.50	3153.70	3167.90	3185.80	3205.10	3225.60	3253.70	3283.30	3308.70	3332.00	3356.30	3382.10	3408.90	3435.80	3459.50	3482.20	3505.20	3527.90	3550.50	3572.80	3595.10
UK	WJ	United Kingdom	Workforce Jobs	34404.80	34455.20	34583.60	34745.20	34917.20	35103.60	35377.40	35668.70	35912.90	36131.30	36357.50	36598.90	36850.30	37098.10	37312.80	37517.60	37721.20	37923.30	38122.20	38318.70	38515.90
ET0607	WAFF	Waveney	Agriculture, Forestry & Fishing WFJ	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.30
ET0607	WEXT	Waveney	Extraction & Mining WFJ	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
ET0607	WMAN	Waveney	Manufacturing WFJ	7.10	7.00	7.10	7.10	6.80	6.80	6.90	6.90	7.00	6.90	6.70	6.80	6.50	6.50	6.40	6.30	6.30	6.20	6.10	6.10	6.00
ET0607	WUTL	Waveney	Utilities WFJ	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
ET0607	WCON	Waveney	Construction WFJ	3.70	3.80	3.80	3.90	3.90	3.80	3.80	4.00	4.10	4.30	4.40	4.20	4.40	4.20	4.10	4.10	4.10	4.10	4.10	4.10	4.20
ET0607	WDIS	Waveney	Wholesale & Retail WFJ	8.30	8.30	8.40	8.40	8.40	8.40	8.50	8.50	8.50	8.50	8.60	8.60	8.60	8.70	8.70	8.60	8.60	8.60	8.60	8.60	8.60
ET0607	WTRS	Waveney	Transport & storage WFJ	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	2.00	2.00	2.00	2.00	2.10	2.10	2.10	2.10	2.10	2.20	2.20	2.20
ET0607	WAFR	Waveney	Accomodation, Food Services & Recreation W	6.10	6.20	6.30	6.30	6.40	6.50	6.50	6.60	6.60	6.70	6.80	6.90	6.90	7.00	7.00	7.10	7.10	7.20	7.20	7.30	7.30
ET0607	WICO	Waveney	Information & communication WFJ	0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
ET0607	WFIN	Waveney	Finance & Insurance WFJ	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
ET0607	WPRI	Waveney	Professional & Other Private Services WFJ	7.90	7.90	7.90	7.90	8.00	7.90	8.00	8.00	8.00	8.10	8.20	8.30	8.30	8.30	8.30	8.30	8.40	8.40	8.40	8.40	8.50
ET0607	WPUB	Waveney	Public Services WFJ	11.60	11.50	11.40	11.50	11.50	11.60	11.80	11.90	12.00	12.00	12.20	12.30	12.50	12.60	12.60	12.70	12.80	12.90	12.90	13.00	13.10